

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Patrick Hearing *et al.*

Serial No.: not yet assigned

Group No.: not yet assigned

Filed: 2/12/2001

Examiner: not yet assigned

Entitled: **HYBRID ADENOVIRUS/ADENO-
ASSOCIATED VIRUS VECTORS AND
METHODS OF USE THEREOF**

CERTIFICATE RE: SEQUENCE LISTING

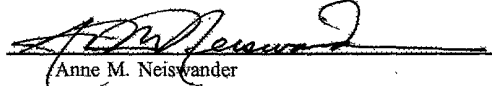
Assistant Commissioner for Patents
Washington, D.C. 20231

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.10

I hereby certify that this correspondence (along with any referred to as being attached or enclosed) is, on the date shown below, being deposited with the U.S. Postal Service in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EL 476 361 610 US, addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

Dated: February 12, 2001

By:

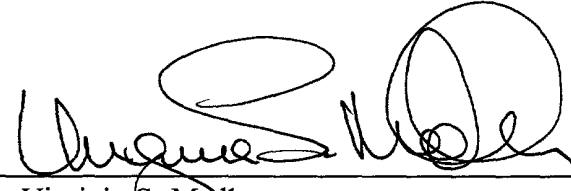

Anne M. Neiswander

Sir or Madam:

I hereby state that the enclosed Sequence Listing is being submitted in paper copy and on a computer-readable diskette, and that the content of the paper and computer readable copies are the same.

Dated: February 12, 2001

By:


Virginia S. Medlen
Registration No. 32,050

Please direct all communication to:

Peter G. Carroll
Registration No. 32,837
MEDLEN & CARROLL, LLP
220 Montgomery Street, Suite 2200
San Francisco, California 94104
415.705.8410

SEQUENCE LISTING

<110> Hearing, Patrick

Bahou, Wadie

Sandalon, Ziv

Gnatenko, Dmitri

<120> Adenoviral Vectors

<130> STONYB-04970

<150> 60/237,747

<151> 2000-10-02

<160> 27

<170> PatentIn version 3.0

<210> 1

<211> 4675

<212> DNA

<213> Human adeno-associated virus 2

<400> 1

ttggccactc cctctctgcg cgctcgctcg ctcaactgagg ccgggcgacc aaaggctcgcc	60
cgacgccccg gctttgcccc ggcggcctca gtgagcgagc gagcgcgag agagggagtg	120
gccaactcca tcactagggg ttcttgagg ggtggagtcg tgacgtgaat tacgtcatag	180
ggtaggggag gtctgtatt agaggtcacg tgagtgtttt ggcacatttt ggcacaccat	240
gtggtcacgc tgggtattta agcccgagtg agcacgcagg gtctccattt tgaagcggga	300
ggtttgaacg cgcagccgcc atgccggggt tttacgagat tgtgattaag gtccccagcg	360
accttgacgg gcatctgccc ggcatctctg acagctttgt gaactgggtg gccgagaagg	420
aatgggagtt gccgccagat tctgacatgg atctgaatct gattgagcag gcacccctga	480
ccgtggccga gaagctgcag cgcgactttc tgacggaatg gcgccgtgtg agtaaggccc	540
cggaggccct tttctttgtg caatttgaga agggagagag ctacttccac atgcacgtgc	600
tcgtggaaac caccggggtg aaatccatgg ttttgggacg tttcctgagt cagattcgcg	660
aaaaactgat tcagagaatt taccgcggga tcgagccgac tttgccaac tggttcgcg	720
tcacaaagac cagaaatggc gccggaggcg ggaacaaggt ggtggatgag tgctacatcc	780
ccaattactt gtccccaaa acccagcctg agtccagtg gccgtggact aatatggaac	840
agtatttaag cgctgtttg aatctcacgg agcgtaaacy gttggtggcg cagcatctga	900

cgcacgtgtc	gcagacgcag	gagcagaaca	aagagaatca	gaatcccaat	tctgatgcgc	960
cggtgatcag	atcaaaaact	tcagccaggt	acatggagct	ggtcgggtgg	ctcgtggaca	1020
aggggattac	ctcggagaag	cagtggatcc	aggaggacca	ggcctcatac	atctccttca	1080
atgcggcctc	caactcgcgg	tcccaaata	aggctgcctt	ggacaatgcg	ggaaagatta	1140
tgagcctgac	taaaaccgcc	cccgactacc	tggtgggcca	gcagcccgtg	gaggacattt	1200
ccagcaatcg	gatttataaa	atthttggaac	taaacgggta	cgatcccca	tatgcggctt	1260
ccgtctttct	gggatgggccc	acgaaaaagt	tcggcaagag	gaacaccatc	tggtctgtttg	1320
ggcctgcaac	taccgggaag	accaacatcg	cggaggccat	agcccacact	gtgcccttct	1380
acgggtgcgt	aaactggacc	aatgagaact	ttcccttcaa	cgactgtgtc	gacaagatgg	1440
tgatctggtg	ggaggagggg	aagatgaccg	ccaaggtcgt	ggagtcggcc	aaagccattc	1500
tcggaggaag	caaggtgcgc	gtggaccaga	aatgcaagtc	ctcggcccag	atagaccgga	1560
ctcccgatgat	cgacacctcc	aacaccaaca	tgtgcgcgct	gattgacggg	aactcaacga	1620
ccttcgaaca	ccagcagccg	ttgcaagacc	ggatgttcaa	atthtgaactc	acccgccgtc	1680
tggtatcatga	ctthtgggaag	gtcaccaagc	aggaagtcaa	agactthtttc	cgggtgggcaa	1740
aggatcacgt	ggttgagggtg	gagcatgaat	tctacgtcaa	aaagggtgga	gccaagaaaa	1800
gaccgcggccc	cagtgcgcga	gatataagtg	agcccaaacg	ggtgcgcgag	tcagttgcgc	1860
agccatcgac	gtcagacgcg	gaagcttcga	tcaactacgc	agacaggtac	caaaacaaat	1920
gttctcgtca	cgtgggcatg	aatctgatgc	tgtthtccctg	cagacaatgc	gagagaatga	1980
atcagaattc	aaatatctgc	ttcactcacg	gacagaaaga	ctgtthtagag	tgctthtcccg	2040
tgtcagaatc	tcaaccgctt	tctgtcgtca	aaaaggcgta	tcagaaactg	tgctacattc	2100
atcatatcat	gggaaagggtg	ccagacgctt	gcactgcctg	cgatctggtc	aatgtggatt	2160
tggtatgactg	catctthtga	caataaatga	thtaaatcag	gtatggctgc	cgatggttat	2220
ctthccagatt	ggctcgagga	cactctctct	gaagggaata	gacagtgggtg	gaagctcaaa	2280
cctggccccc	caccaccaa	gcccgcagag	cggcataagg	acgacagcag	gggtcttctg	2340
ctthctgggt	acaagtacct	cggacccttc	aacggactcg	acaagggaga	gccgggtcaac	2400
gaggcagacg	ccgcggccct	cgagcacgta	caaagcctac	gaccggcagc	tcgacagcgg	2460
agacaacccg	tacctcaagt	acaaccacgc	cgacgcggag	thtcaggagc	gcctthaaaga	2520
agatacgtct	thtgggggca	acctcgacg	agcagtcttc	caggcgaaaa	agagggttct	2580
tgaacctctg	ggcctgggtg	aggaacctgt	taagacggct	ccgggaaaaa	agaggccgggt	2640
agagcactct	cctgtggagc	cagactcctc	ctcgggaacc	ggaaaggcgg	gccagcagcc	2700

tgcaagaaaa agattgaatt ttggtcagac tggagacgca gactcagtac ctgacccccca	2760
gcctctcggga cagccaccag cagccccctc tggctctggga actaatacga tggctacagg	2820
cagtggcgca ccaatggcag acaataacga gggcgccgac ggagtgggta attcctccgg	2880
aaattggcat tgcgattcca catggatggg cgacagagtc atcaccacca gcacccgaac	2940
ctggggccctg cccacctaca acaaccacct ctacaaacaa atttccagcc aatcaggagc	3000
ctcgaacgac aatcaactact ttggctacag cacccttgg gggatattttg acttcaacag	3060
attccactgc cacttttcac cacgtgactg gcaaagactc atcaacaaca actggggatt	3120
ccgacccaag agactcaact tcaagctctt taacattcaa gtcaaagagg tcacgcagaa	3180
tgacgggtacg acgacgattg ccaataacct taccagcacg gttcagggtg ttactgactc	3240
ggagtaccag ctcccgtacg tccctcggtc ggcgcacaa ggatgcctcc cgccgttccc	3300
agcagacgtc ttcattggtg cacagtatgg atacctacc ctgaacaacg ggagtcaggc	3360
agtaggacgc tcttcatttt actgcctgga gtactttcct tctcagatgc tgcgtaccgg	3420
aaacaacttt accttcagct acacttttga ggacgttcct ttccacagca gctacgctca	3480
cagccagagt ctggaccgtc tcatgaatcc tctcatcgac cagtacctgt attacttgag	3540
cagaacaaac actccaagtg gaaccaccac gcagtcaagg cttcagtttt ctcaggccgg	3600
agcgagtgc attcgggacc agtctaggaa ctggcttcct ggaccctgtt accgccagca	3660
gcgagtatca aagacatctg cggataacaa caacagtga tactcgtgga ctggagctac	3720
caagtaccac ctcaatggca gagactctct ggtgaatccg gccatggcaa gccacaagga	3780
cgatgaagaa aagttttttc ctcagagcgg ggttctcatc tttgggaagc aaggctcaga	3840
gaaaacaaat gtgaacattg aaaagggtcat gattacagac gaagaggaaa tcggaacaac	3900
caatcccgtg gctacggagc agtatggttc tgtatctacc aacctccaga gaggcaacag	3960
acaagcagct accgcagatg tcaacacaca aggcgttctt ccaggcatgg tctggcagga	4020
cagagatgtg taccttcagg ggcccatctg ggcaaagatt ccacacacgg acggacattt	4080
tcacccctct cccctcatgg gtggattcgg acttaaacac cctcctccac agattctcat	4140
caagaacacc ccggtacctg cgaatccttc gaccaccttc agtgcggaagc agtttgcttc	4200
cttcattcaca cagtactcca cgggacacgg tcagcgtgga gatcgagtgg gagctgcaga	4260
aggaaaacag caaacgctgg aatcccgaat ttcagtacac ttccaactac aacaagtctg	4320
ttaatcgtgg acttaccgtg gataactaat gcgtgtattc agagcctcgc cccattggca	4380
ccagatacct gactcgaat ctgtaattgc ttgttaatca ataaaccgtt taattcggtt	4440
cagttgaact ttggtctctg cgtatttctt tcttatctag tttccatggc tacgtagata	4500

agtagcatgg cgggttaatc attaactaca aggaaccct agtgatggag ttggccactc 4560
cctctctgcg cgctcgctcg ctactgagg ccgggcgacc aaaggctcgcc cgacgcccgg 4620
gctttgcccg ggcggcctca gtgagcgagc gagcgcgag agagggagtg gcaa 4675

<210> 2

<211> 4675

<212> DNA

<213> Human adeno-associated virus 2

<400> 2
ttggccactc cctctctgcg cgctcgctcg ctactgagg ccgggcgacc aaaggctcgcc 60
cgacgcccgg gctttgcccg ggcggcctca gtgagcgagc gagcgcgag agagggagtg 120
gccaactcca tactagggg ttcttgagg ggtggagtgc tgacgtgaat tacgtcatag 180
ggttagggag gtctgtatt agaggtcacg tgagtgtttt gcgacatttt gcgacaccat 240
gtggtcacgc tgggtattta agcccgagtg agcacgcagg gtctccattt tgaagcggga 300
ggtttgaacg cgcagccgcc atgccgggt tttacgagat tgtgattaag gtccccagcg 360
accttgacgg gcatctgccc ggcatctctg acagctttgt gaactgggtg gccgagaagg 420
aatgggagtt gccgccagat tctgacatgg atctgaatct gattgagcag gcaccctga 480
ccgtggccga gaagctgcag cgcgactttc tgacggaatg gcgcgtgtg agtaaggccc 540
cggaggccct tttctttgtg caatttgaga agggagagag ctacttccac atgcacgtgc 600
tcgtgaaaac caccggggtg aaatccatgg ttttgggacg tttctgagt cagattcgcg 660
aaaaactgat tcagagaatt taccgcgga tcgagccgac tttgcaaac tggttcgcg 720
tcacaaagac cagaaatggc gccggaggcg ggaacaagg ggtggatgag tgctacatcc 780
ccaattactt gtcccccaa acccagcctg agctccagtg gccgtggact aatatggaac 840
agtatttaag cgctgtttg aatctcacgg agcgtaaagc gttggtggcg cagcatctga 900
cgcacgtgtc gcagacgcag gagcagaaca aagagaatca gaatcccaat tctgatgcgc 960
cggatgatcag atcaaaaact tcagccagg acatggagct ggtcgggtgg ctctgggaca 1020
aggggattac ctcgagaag cagtggatcc aggaggacca ggcctcatal atctccttca 1080
atgcggcctc caactcgcg tcccaaatac aggcctgcctt ggacaatgcg ggaaagatta 1140
tgagcctgac taaaaccgcc cccgactacc tggggggcca gcagcccgtg gaggacattt 1200
ccagcaatcg gatttataaa attttggaaac taaacgggta cgatcccaa tatgcggctt 1260
ccgtctttct gggatgggccc acgaaaaagt tcggcaagag gaacaccatc tggctgtttg 1320
ggcctgcaac taccgggaag accaacaatc cggaggccat agccacact gtgcccttct 1380

acgggtgCGT aaactggacc aatgagaact ttcccttcaa cgactgtgtc gacaagatgg 1440
 tgatctggtg ggaggagggg aagatgaccg ccaaggTCGT ggagtcggcc aaagccattc 1500
 tcggaggaag caaggtgCGc gtggaccaga aatgcaagtc CTCggcccag atagacccga 1560
 ctcccgtgat cgtcacctcc aacaccaaca tgtgCGccgt gattgacggg aactcaacga 1620
 ccttcgaaca ccagcagccg ttgcaagacc ggatgttcaa atttgaactc acccgccgtc 1680
 tggatcatga ctttgggaag gtcaccaagc aggaagtcaa agactttttc cggTgggcaa 1740
 aggatcacgt ggttgaggTg gagcatgaat tctacgtcaa aaagggtgga gccaaagaaaa 1800
 gacccgcccc cagtGacgca gatataagtG agcccaaacg ggtgCGcgag tcagttgCGc 1860
 agccatCGac gtcagacCGg gaagcttcga tcaactacgc agacaggtac caaaacaaat 1920
 gttctcgtca cgtgggcatg aatctgatgc tgtttccctg cagacaatgc gagagaatga 1980
 atcagaattc aaatatctgc ttcactcacg gacagaaaga ctgtttagag tgctttcccg 2040
 tgtcagaatc tcaaccCGtt tctgtcgtca aaaaggCGta tcagaaactg tgctacattc 2100
 atcatatcat gggaaaggTg ccagacgctt gcactgcctg cgatctggTc aatgtggatt 2160
 tggatgactg catctttgaa caataaatga tttaaatcag gtatggctgc cgatggttat 2220
 cttccagatt ggctCGagga cactctctct gaaggaataa gacagtggTg gaagctcaaa 2280
 cctggcccac caccacaaa gcccgCagag cggcataagg acgacagcag gggTcttTgTg 2340
 cttcctgggt acaagtacct cggacccttc aacggactcg acaagggaga gccggTcaac 2400
 gaggcagacg ccgCGgccct cgagcacgta caaagcctac gaccggcagc tcgacagCGg 2460
 agacaacccg tacctcaagt acaaccacgc cgacCGcgag tttcaggagc gccttaaaga 2520
 agatacgtct tttgggggca acctCGgacg agcagtcttc caggCGaaaa agagggttct 2580
 tgaacctctg ggctggtTg aggaacctgt taagacggct ccgggaaaaa agaggccggT 2640
 agagcactct cctgtggagc cagactcctc CTCgggaacc ggaaaggCGg gccagcagcc 2700
 tgcaagaaaa agattgaatt ttggtcagac tggagacgca gactcagtac ctgaccccca 2760
 gcctctcgga cagccaccag cagccccctc tggTctggga actaatacga tggctacagg 2820
 cagtggcGca ccaatggcag acaataacga gggCGccgac ggagtgggta attcctccgg 2880
 aaattggcat tgcgattcca catggatggg cgacagagtc atcaccacca gcacccgaac 2940
 ctgggcccctg cccacctaca acaaccacct ctacaaacaa atttccagcc aatcaggagc 3000
 ctogaacgac aatcactact ttggctacag cacccttTgTg ggtatTTTTg acttcaacag 3060
 attccactgc cactttttcac cacgtgactg gcaaagactc atcaacaaca actggggatt 3120
 ccgacccaag agactcaact tcaagctctt taacattcaa gtcaaagagg tcacgcagaa 3180

tgacggtacg acgacgattg ccaataacct taccagcacg gttcaggtgt ttactgactc	3240
ggagtaccag ctcccgtacg tcctcggctc ggcgcatcaa ggatgcctcc cgccgttccc	3300
agcagacgtc ttcattggtgc cacagtatgg atacctcacc ctgaacaacg ggagtcaggc	3360
agtaggacgc tcttcattttt actgcctgga gtacttttct tctcagatgc tgcgtaccgg	3420
aaacaacttt acccttcagct acacttttga ggacgttcct ttccacagca gctacgctca	3480
cagccagagt ctggaccgtc tcatgaatcc tctcatcgac cagtacctgt attacttgag	3540
cagaacaaac actccaagtg gaaccaccac gcagtcaagg cttcagtttt ctcaggccgg	3600
agcgagtgc attcgggacc agtctaggaa ctggcttcct ggacctgtt accgccagca	3660
gcgagtatca aagacatctg cggataacaa caacagtga tactcgtgga ctggagctac	3720
caagtaccac ctcaatggca gagactctct ggtgaatccg gccatggcaa gccacaagga	3780
cgatgaagaa aagttttttc ctcagagcgg ggttctcatc ttggggaagc aaggctcaga	3840
gaaaacaaat gtgaacattg aaaagggtcat gattacagac gaagaggaaa tcggaacaac	3900
caatcccgtg gctacggagc agtatggttc tgtatctacc aacctccaga gaggcaacag	3960
acaagcagct accgcagatg tcaacacaca aggcgttctt ccaggcatgg tctggcagga	4020
cagagatgtg taccttcagg ggcccatctg ggcaaagatt ccacacacgg acggacattt	4080
tcacctctct cccctcatgg gtggattcgg acttaaacac cctcctccac agattctcat	4140
caagaacacc ccggtacctg cgaatccttc gaccaccttc agtgcggaac agtttgcttc	4200
cttcatacaca cagtactcca cgggacacgg tcagcgtgga gatcgagtgg gagctgcaga	4260
aggaaaacag caaacgctgg aatcccgaac ttcagtacac ttccaactac aacaagtctg	4320
ttaatcgtgg acttaccgtg gatactaatt gcgtgtattc agagcctcgc cccattggca	4380
ccagatacct gactcgtaat ctgtaattgc ttgttaatca ataaaccgtt taattcgttt	4440
cagttgaact ttggtctctg cgtatttctt tcttatctag tttccatggc tacgtagata	4500
agtagcatgg cgggttaatc attaactaca aggaaccctc agtgatggag ttggccactc	4560
cctctctgcg cgctcgctcg ctcactgagg ccgggcgacc aaaggctgcc cgacgccggg	4620
gctttgcccg ggcggcctca gtgagcgagc gagcgcgcag agagggagtg gccaa	4675

<210> 3

<211> 35937

<212> DNA

<213> Human adeno-associated virus 2

<400> 3
catcatcata atatacctta ttttggattg aagccaatat gataatgagg ggggtggagtt 60
tgtgacgtgg cgcggggcgt ggggaacgggg cgggtgacgt agtagtgtgg cggaagtgtg 120
atgttgcaag tgtggcggaa cacatgtaag cgccggatgt ggtaaaagtg acgttttttg 180
tgtgcgccgg tgtatacggg aagtgacaat tttcgcgcgg ttttaggcgg atgttgtagt 240
aaatttgggc gtaaccaagt aatgtttggc catttttcgcg ggaaaactga ataagaggaa 300
gtgaaatctg aataattctg tgttactcat agcgcgtaat atttgtctag ggccgcgggg 360
actttgaccg tttacgtgga gactcgccca ggtgtttttc tcaggtgttt tccgcgttcc 420
gggtcaaagt tggcgtttta ttattatagt cagctgacgc gcagtgtatt tatacccggt 480
gagttcctca agaggccact cttgagtgc agcgagtaga gttttctcct ccgagccgct 540
ccgacaccgg gactgaaaat gagacatatt atctgccacg gaggtgttat taccgaagaa 600
atggccgcca gtcttttggg ccagctgac gaagaggtag tggctgataa tcttccacct 660
cctagccatt ttgaaccacc tacccttcac gaactgtatg atttagacgt gacggccccc 720
gaagatccca acgaggaggc ggtttcgcag atttttcccg agtctgtaat gttggcgggtg 780
caggaaggga ttgacttatt cacttttccg ccggcgcccg gttctccgga gccgcctcac 840
ctttcccggc agcccagca gccggagcag agagccttgg gtccggtttc tatgccaaac 900
cttggtgccg aggtgatcga tcttacctgc cacgaggctg gctttccacc cagtgcacgac 960
gaggatgaag aggggtgagg gtttgtgtta gattatgtgg agcaccgccg gcacgggtgc 1020
aggtcttgtc attatcaccg gaggaatacg ggggaccagc atattatgtg ttcgctttgc 1080
tatatgagga cctgtggcat gtttgtctac agtaagtga aattatgggc agtcggtgat 1140
agagtgggtg gtttgggtgt gtaatttttt ttaatttttt acagttttgt ggtttaaaga 1200
attttgtatt gtgatttttt aaaaggtcct gtgtctgaac ctgagcctga gcccgagcca 1260
gaaccggagc ctgcaagacc taccggcgt cctaaattgg tgctgtctat cctgagacgc 1320
ccgacatcac ctgtgtctag agaatgcaat agtagtacgg atagctgtga ctccggctct 1380
tctaacacac ctctgagat acaccgggtg gtcccgctgt gcccattaa accagttgcc 1440
gtgagagttg gtgggcgtcg ccaggctgtg gaatgtatcg aggacttgct taacgagtct 1500
gggcaacctt tggacttgag ctgtaaagc cccaggccat aaggtgtaaa cctgtgattg 1560
cgtgtgtggt taacgccttt gtttgcgtga tgagttgatg taagttaaat aaagggtgag 1620
ataatgttta acttgcatgg cgtgttaaat ggggcggggc ttaaagggtg tataatgcgc 1680
cgtgggctaa tcttggttac atctgacctc atggaggctt gggagtgttt ggaagatttt 1740
tctgctgtgc gtaacttgct ggaacagagc tctaacagta cctcttggtt ttggagggtt 1800

ctgtggggct cctcccaggc aaagttagtc tgcagaatta aggaggatta caagtgggaa	1860
tttgaagagc ttttgaaatc ctgtggtgag ctgtttgatt ctttgaatct gggtcaccag	1920
gcgcttttcc aagagaaggt catcaagact ttggattttt ccacaccggg gcgcgctgcg	1980
gctgctgttg cttttttgag ttttataaag gataaatgga gcgaagaaac ccatctgagc	2040
gggggggtacc tgctggattt tctggccatg catctgtgga gagcgggtggg gagacacaag	2100
aatcgcctgc tactgttgct tccgctccgc ccggcaataa taccgacgga ggagcaacag	2160
caggaggaag ccaggcggcg gcggcggcag gagcagagcc catggaaccc gagagccggc	2220
ctggaccctc gggaatgaat gttgtacagg tggttgaact gtttccagaa ctgagacgca	2280
ttttaaccat taacgaggat gggcaggggc taaagggggg aaagagggag cgggggggctt	2340
ctgaggctac agaggaggct aggaatctaa ctttttagctt aatgaccaga caccgtcctg	2400
agtgtgttac ttttcagcag attaaggata attgcgctaa tgagcttgat ctgctggcgc	2460
agaagtattc catagagcag ctgaccactt actggctgca gccaggggat gattttgagg	2520
aggctattag ggtatatgca aaggtggcac ttaggccaga ttgcaagtac aagattagca	2580
aacttgtaaa tatcaggaat tgttgctaca tttctgggaa cggggccgag gtggagatag	2640
atacggagga tagggtggcc tttagatgta gcatgataaa tatgtggccg ggggtgcttg	2700
gcatggacgg ggtggttatt atgaatgtga ggtttactgg tccaatttt agcggtagcg	2760
ttttcctggc caataccaat cttatcctac acggtgtaag cttctatggg tttacaata	2820
cctgtgtgga agcctggacc gatgtaaggg ttcggggctg tgccttttac tgctgctgga	2880
aggggggtgg gtgtcgcccc aaaagcaggg cttcaattaa gaaatgcctg tttgaaaggt	2940
gtaccttggg tatcctgtct gagggtaact ccagggtgcg ccacaatgtg gcctccgact	3000
gtggttgctt catgctagtg aaaagcgtgg ctgtgattaa gcataacatg gtgtgtggca	3060
actgcgagga cagggcctct cagatgctga cctgctcgga cggcaactgt cacttgctga	3120
agaccattca cgtagccagc cactctcgca aggcctggcc agtgtttgag cacaacatac	3180
tgaccgcgtg ttccttgcac ttgggtaaca ggaggggggt gttcctacct taccaatgca	3240
at ttgagtca cactaagata ttgcttgagc ccgagagcat gtccaagggtg aacctgaacg	3300
gggtgtttga catgaccatg aagatctgga aggtgctgag gtacgatgag acccgcacca	3360
ggtgcagacc ctgcgagtgt ggcggtaaac atattaggaa ccagcctgtg atgctggatg	3420
tgaccgagga gctgaggccc gatcacttgg tgctggcctg caccgcgct gagtttggct	3480
ctagcgatga agatacagat tgaggtagtg aaatgtgtgg gcgtggctta aggggtgggaa	3540
agaatatata aggtgggggt ctcagttagt tttgtatctg ttttgcagca gccgcccca	3600

tgagcgccaa ctcgtttgat ggaagcattg tgagctcata tttgacaacg cgcattgcccc	3660
catggggccgg ggtgcgtcag aatgtgatgg gctccagcat tgatggtcgc cccgtcctgc	3720
ccgcaaactc tactaccttg acctacgaga ccgtgtctgg aacgccgttg gagactgcag	3780
cctccgccgc cgcttcagcc gctgcagcca ccgcccgcgg gattgtgact gactttgctt	3840
tcctgagccc gcttgcaagc agtgcagctt cccgttcata cgcgcgcgat gacaagttga	3900
cggtctctttt ggcacaattg gattctttga cccgggaact taatgtcgtt tctcagcagc	3960
tggtggatct gcgccagcag gtttctgccc tgaaggcttc ctcccctccc aatgcggttt	4020
aaaacataaa taaaaaccag actctgtttg gattttgatc aagcaagtgt cttgctgtct	4080
ttatttaggg gttttgcgcg cgcggtaggc ccgggaccag cggctctcggc cgttgagggt	4140
cctgtgtatt ttttccagga cgtggtaaag gtgactctgg atgttcagat acatgggcat	4200
aagcccgctc ctgggggtga ggtagcacca ctgcagagct tcatgctgcg ggggtgggtt	4260
gtagatgatc cagtcgtagc aggagcgtg ggcggtggtgc ctaaaaatgt ctttcagtag	4320
caagctgatt gccaggggca ggcccttggt gtaagtgtt acaaagcggg taagctggga	4380
tgggtgcata cgtggggata tgagatgcat cttggactgt attttttaggt tggctatgtt	4440
cccagccata tccctccggg gattcatgtt gtgcagaacc accagcacag tgtatccggc	4500
gcacttgga aatttgtcat gtagcttaga aggaaatgcg tggaagaact tggagacgcc	4560
cttgtgacct ccgagatttt ccatgcattc gtccataatg atggcaatgg gccacgggc	4620
ggcggcctgg gcgaagatat ttctgggatc actaacgtca tagttgtgtt ccaggatgag	4680
atcgtcatag gccattttta caaagcgcgg gcggaggggtg ccagactgcg gtataatggt	4740
tccatccggc ccaggggcgt agttaccctc acagatttgc atttcccacg ctttgagtgc	4800
agatgggggg atcatgtcta cctgcggggc gatgaagaaa accgtttccg gggtagggga	4860
gatcagctgg gaagaaagca ggttcctgag cagctgcgac ttaccgcagc cgggtggccc	4920
gtaaatcaca cctattaccg gctgcaactg gtagttaaga gagctgcagc tgccgtcatc	4980
cctgagcagg ggggccactt cgttaagcat gtccctgact tgcattgttt ccctgaccaa	5040
atgcgccaga aggcgctcgc cgcgcagcga tagcagttct tgcaaggaag caaagttttt	5100
caacggtttg aggcgctccg ccgtaggcat gcttttgagc gtttgaccaa gcagttccag	5160
gcgggtccac agctcgggtca cgtgctctac ggcatctcga tccagcatat ctctcgttt	5220
cgcggttggt ggcggttttc gctgtacggc agtagtcggg gctcgtccag acgggcccag	5280
gtcatgtctt tccacgggcg cagggtcctc gtcagcgtag tctgggtcac ggtgaagggg	5340
tgcgctccgg gctgcgcgct ggccaggggtg cgcttgaggc tggctcctgct ggtgctgaag	5400

cgctgccggt cttcgccctg cgcgtcggcc aggtagcatt tgaccatggt gtcatagtcc	5460
agccccctccg cggcgtggcc cttggcgcgc agcttgccct tggaggaggc gccgcacgag	5520
gggcagtgca gacttttaag ggcgtagagc ttgggcgcga gaaataccga ttccggggag	5580
taggcatccg cgccgcaggc cccgcagacg gtctcgcat ccacgagcca ggtgagctct	5640
ggccgttcgg ggtcaaaaac cagggttccc ccatgctttt tgatgcgttt cttacctctg	5700
gtttccatga gccggtgtcc acgctcgggt acgaaaaggc tgtccgtgtc cccgtataca	5760
gacttgagag gcctgtcctc gagcgggtgt cgcgggtcct cctcgtatag aaactcggac	5820
cactctgaga cgaaggctcg cgtccaggcc agcacgaagg aggctaagt ggaggggtag	5880
cggtcgttgt cactagggg gtccactcgc tccagggtgt gaagacacat gtcgccctct	5940
tcggcatcaa ggaaggatgat tggtttatag gtgtaggcca cgtgaccggg tgttcctgaa	6000
ggggggctat aaaagggggg gggggcgcgt tcgtcctcac tctcttcgc atcgctgtct	6060
gcgagggcca gctgttgggg tgagtactcc ctctcaaaag cgggcatgac ttctgcgcta	6120
agattgtcag tttccaaaaa cgaggaggat ttgatattca cctggccgc ggtgatgcct	6180
ttgaggggtg ccgcgtccat ctggtcagaa aagacaatct ttttgttgtc aagcttgggtg	6240
gcaaacgacc cgtagagggc gttggacagc aacttggcga tggagcgcag ggtttggttt	6300
ttgtcgcgat cggcgcgctc cttggccgcg atgttttagt gcacgtattc gcgcgcaacg	6360
caccgccatt cgggaaagac ggtggtgctc tcgtcgggca ccagggtgcac gcgccaaccg	6420
cggttgtgca gggtgacaag gtcaacgctg gtggctacct ctccgcgtag gcgctcgttg	6480
gtccagcaga ggcggccgcc cttgcgcgaa cagaatggcg gtagtgggtc tagctgcgtc	6540
tcgtccgggg ggtctgcgtc cacggtaaag accccgggca gcaggcgcgc gtcgaagtag	6600
tctatcttgc atccttgcaa gtctagcgcc tgctgccatg cgcgggcggc aagcgcgcgc	6660
tcgtatgggt tgagtggggg accccatggc atgggggtgg tgagcgcgga ggcgtacatg	6720
ccgcaaagt cgtaaacgta gagggtctct ctgagtattc caagatatgt agggtagcat	6780
cttccaccgc ggatgctggc gcgcacgtaa tcgtatagtt cgtgcgaggg agcagggagg	6840
tcgggaccga ggttgctacg ggcgggctgc tctgctcgga agactatctg cctgaagatg	6900
gcatgtgagt tggatgatat ggttgacgc tggaagacgt tgaagctggc gtctgtgaga	6960
cctaccgcgt cacgcacgaa ggaggcgtag gagtcgcgca gcttggtgac cagctcggcg	7020
gtgacctgca cgtctagggc gcagtagtcc agggtttcct tgatgatgtc atacttatcc	7080
tgtccctttt ttttccacag ctgcgggtt aggacaaact cttcgcggtc tttccagtac	7140
tcttggtatg gaaaccgctc ggccctccgaa cggttaagagc ctagcatgta gaactgggtg	7200

acggcctggt aggcgcagca tcccttttct acgggtagcg cgtatgcctg cgcggccttc	7260
cggagcgagg tgtgggtgag cgcaaaggtg tccctaacca tgactttgag gtactggtat	7320
ttgaagtcag tgtcgtcgca tccgccctgc tcccagagca aaaagtccgt gcgctttttg	7380
gaacgcgggt ttggcagggc gaaggtgaca tcgttgaaaa gtatctttcc cgcgcgaggc	7440
ataaagttgc gtgtgatgcg gaaggggtccc ggcacctcg aacggttggt aattacctgg	7500
gcggcgagca cgatctcgtc gaagccgttg atgttggtgc ccacgatgta aagttccaag	7560
aagcgcgggg tgcccttgat ggagggcaat tttttaagtt cctcgtagggt gagctcctca	7620
ggggagctga gcccgtgttc tgacagggcc cagtctgcaa gatgagggtt ggaagcgacg	7680
aatgagctcc acaggtcacg ggccattagc atttgcaggt ggtcgcgaaa ggtcctaaac	7740
tggcgacctt tggccatttt ttctggggtg atgcagtaga aggtaagcgg gtcttggtcc	7800
cagcgggtccc atccaaggtc cacggctagg tctcgcgcgg cggtcaccag aggctcatct	7860
ccgccgaact tcataaccag catgaagggc acgagctgct tcccaaaggc ccccatccaa	7920
gtataggtct ctacatcgta ggtgacaaag agacgctcgg tgcgaggatg cgagccgatc	7980
gggaagaact ggatctcccc ccaccagttg gaggagtggc tgttgatgtg gtgaaagtag	8040
aagtcctctg caggggccga acactcgtgc tggtttttgt aaaaacgtgc gcagtactgg	8100
cagcggtgca cgggctgtac atcctgcacg aggttgacct gacgaccgcg cacaaggaag	8160
cagagtggga atttgagccc ctgcctggc gggtttggtt ggtggtcttc tacttcggct	8220
gcttgctcctt gaccgtctgg ctgctcgagg ggagttatgg tggatcggac caccacgccg	8280
cgcgagccca aagtccagat gtccgcgcgc ggcggtcgga gcttgatgac aacatcgcgc	8340
agatgggagc tgtccatggt ctggagctcc cgcggcgaca ggtcaggcgg gagctcctgc	8400
aggtttacct cgcatagccg ggtcagggcg cgggctagggt ccaggtgata cctgatttcc	8460
aggggctggt tgggtggcggc gtcgatgact tgcaagaggc cgcacccccg cggcgcgact	8520
acggtaccgc gcggcgggcg gtgggcccgc ggggtgtcct tggatgatgc atctaaaagc	8580
ggtgacgcgg gcggggcccc ggaggtaggg ggggctcggg acccgccggg agagggggca	8640
ggggcacgtc ggcgcgcgc gcgggcagga gctggtgctg cgcgcgagg ttgctggcga	8700
acgcgacgac gcggcggttg atctcctgaa tctggcgctt ctgctgaag acgacgggcc	8760
cggtgagctt gaacctgaaa gagagtcca cagaatcaat ttcggtgtcg ttgacggcgg	8820
cctggcgcaa aatctcctgc acgtctcctg agttgtcttg ataggcgatt tcggccatga	8880
actgctcgat ctcttctctc tggagatctc cgcgtccggc tcgctccacg gtggcggcga	8940
ggtcgttgga gatgcgggcc atgagctgcg agaaggcgtt gaggcctccc tcgttccaga	9000

tagctttttt ggccactggc cgcgcgcggc gtaagcgggt aggctggaaa gcgaaagcat 10860
taagtggctc gctccctgta gccggaggggt tattttccaa gggttgagtc gcaggacccc 10920
cggttcgagt ctcggggccgg ccggactgcg gcgaacgggg gtttgcctcc ccgtcatgca 10980
agaccccgtc tgcaaattcc tccggaaaca gggacgagcc ctttttttgc ttttcccaga 11040
tgcacccggt gctgcggcag atgcgcccc ctcctcagca gcggcaagag caagagcagc 11100
ggcagacatg cagggcaccc tccccctctc ctaccgcgtc aggaggggca acatccgcgg 11160
ctgacgcggc ggcagatggt gattacgaac ccccgcgggc ccggggcccg cactacctgg 11220
acttgaggga gggcgagggc ctggcgcggc taggagcgcc ctctcctgag cgacacccaa 11280
gggtgcagct gaagcgtgac acgcgcgagg cgtacgtgcc gcggcagaac ctgtttcgcg 11340
accgcgaggg agaggagccc gaggagatgc gggatcgaaa gttccacgca gggcgcgagt 11400
tgccgcatgg cctgaaccgc gagcggttgc tgcgcgagga ggactttgag cccgacgcgc 11460
ggaccgggat tagtcccgcg cgcgcacacg tggcgccgcg cgacctggtg accgcgtacg 11520
agcagacggt gaaccaggag attaaacttt aaaaaagctt taacaaccac gtgcgcacgc 11580
ttgtggcgcg cgaggaggtg gctataggac tgatgcatct gtgggacttt gtaagcgcgc 11640
tgagacaaaa cccaaatagc aagccgctca tggcgagct gttccttata gtgcagcaca 11700
gcagggacaa cgaggcattc agggatgcgc tgctaaacat agtagagccc gaggggccgct 11760
ggctgctcga tttgataaac attctgcaga gcatagtggg gcaggagcgc agcttgagcc 11820
tggctgacaa ggtggccgcc attaaactatt ccatgctcag tctgggcaag ttttacgccc 11880
gcaagatata ccatacccct tacgttccca tagacaagga ggtaaagatc gagggggttct 11940
acatgcgcat ggcgttgaag gtgcttacct tgagcgacga cctgggcgtt tatcgcaacg 12000
agcgcattca caaggccgtg agcgtgagcc ggcggcgcg gctcagcgac cgcgagctga 12060
tgcacagcct gcaaagggcc ctggctggca cgggcagcgg cgatagagag gccgagtcct 12120
actttgacgc gggcgctgac ctgcgctggg ccccaagccg acgcgccctg gaggcagctg 12180
gggcccggacc tgggctggcg gtggcacccg cgcgcgctgg caacgtcggc ggcgtggagg 12240
aatatgacga ggacgatgag tacgagccag aggacggcga gtactaagcg gtgatgtttc 12300
tgatcagatg atgcaagacg caacggaccc ggcggtgcgg gcggcgctgc agagccagcc 12360
gtccggcctt aactccacgg acgactggcg ccaggctcat gaccgcatca tgtcgtgac 12420
tgcgcgtaac cctgacgcgt tccggcagca gccgcaggcc aaccggctct ccgcaattct 12480
ggaagcggtg gtcccgccgc gcgcaaacc cagcacgag aaggtgctgg cgatcgtaaa 12540
cgcgctggcc gaaaacaggg ccatccggcc cgatgaggcc ggctgtgtct acgacgcgct 12600

gcttcagcgc gtggctcgtt acaacagcgg caacgtgcag accaacctgg accggctgggt 12660
gggggatgtg cgcgaggccg tggcgagcgc tgagcgcgcg cagcagcagg gcaacctggg 12720
ctccatgggtt gcactaaacg ccttcctgag tacacagccc gccaacgtgc cgcggggaca 12780
ggaggactac accaactttg tgagcgact gcggctaata gtgactgaga caccgcaaag 12840
tgaggtgtac cagtccgggc cagactatct tttccagacc agtagacaag gcctgcagac 12900
cgtaaacctg agccaggctt tcaagaactt gcaggggctg tgggggggtgc gggctccac 12960
aggcgaccgc gcgaccgtgt ctagcttgct gacgccaac tcgcgcctgt tgctgctgct 13020
aatagcgcgc ttcacggaca gtggcagcgt gtcccgggac acatacctag gtcacttgct 13080
gacactgtac cgcgaggcca taggtcaggc gcatgtggac gagcatactt tccaggagat 13140
tacaagtgtc agccgcgcgc tggggcagga ggacacgggc agcctggagg caacctgaa 13200
ctacctgtg accaaccggc ggcagaagat cccctcgttg cacagtttaa acagcgagga 13260
ggagcgcata ttgcgctatg tgcagcagag cgtgagcctt aaactgatgc gcgacgggggt 13320
aacgcccagc gtggcgctgg acatgaccgc gcgcaacatg gaaccgggca tgtatgcctc 13380
aaaccggccg tttatcaatc gcctaattga ctacttgcat cgcgcggccg ccgtgaaccc 13440
cgagtatttc accaatgcca tcttgaaccc gacttgcta ccgcccctg gtttctacac 13500
cgggggattt gaggtgccg agggtaacga tggattcctc tgggacgaca tagacgacag 13560
cgtgttttcc ccgcaaccgc agaccctgct agagttgcaa cagcgcgagc aggcagaggc 13620
ggcgctgcga aaggaaagct tccgcaggcc aagcagcttg tccgatctag gcgctgcggc 13680
cccgcggtca gatgcgagta gccatttcc aagcttgata gggctcttta ccagcactcg 13740
caccacccgc ccgcgcctgc tgggcgagga ggagtaccta aacaactcgc tgctgcagcc 13800
gcagcgcgaa aagaacctgc ctccggcatt tccaacaac gggatagaga gcctagtgga 13860
caagatgagt agatggaaga cgtatgcgca ggagcacagg gatgtgcccg gccgcgccc 13920
gcccacccgt cgtcaaaggc acgaccgtca gcggggtctg gtgtgggagg acgatgactc 13980
ggcagacgac agcagcgtcc tggatttggg agggagtggc aaccggttg cgcacctcg 14040
ccccaggctg gggagaatgt tttaaaaaaa aaaaaaaaaa gcatgatgca aaataaaaaa 14100
ctcaccaagg ccatggcacc gagcgttggt tttcttgat tccccttagt atgcagcgcg 14160
cggcgatgta tgaggaaggc cctcctccct cctacgagag cgtggtgagc gcggcgccag 14220
tggcgcgggc gctgggttcc ccttcgatg ctccctgga cccgcggtt gtgcctccgc 14280
ggtacctgcg gcctaccggg gggagaaaca gcatccgtta ctctgagttg gcaccctat 14340
tcgacaccac ccgtgtgtac cttgtggaca acaagtcaac ggatgtggca tccctgaact 14400

accagaacga ccacagcaac tttctaacca cggtcattca aaacaatgac tacagcccgg 14460
gggaggcaag cacacagacc atcaatcttg acgaccgttc gcaactggggc ggcgacctga 14520
aaaccatcct gcataccaac atgccaaatg tgaacgagtt catgtttacc aataagttta 14580
aggcgcgggg gatggtgtcg cgctcgctta ctaaggacaa acaggtggag ctgaaatatg 14640
agtgggtgga gttcacgctg cccgagggca actactccga gaccatgacc atagacctta 14700
tgaacaacgc gatcgtggag cactacttga aagtgggcag gcagaacggg gttctgga 14760
gcgacatcgg ggtaaagttt gacacccgca acttcagact ggggtttgac ccagtcactg 14820
gtcttgtcat gctggggta tatacaaacg aagccttcca tccagacatc attttgctgc 14880
caggatgcgg ggtggacttc acccacagcc gcctgagcaa cttgttgggc atccgcaagc 14940
ggcaaccctt ccaggagggc tttaggatca cctacgatga cctggagggt ggtaacattc 15000
ccgcaactgt ggatgtggac gcctaccagg caagcttaaa agatgacacc gaacagggcg 15060
gggatggcgc aggcggcggc aacaacagtg gcagcggcgc ggaagagaac tccaacgcgg 15120
cagccgcggc aatgcagccg gtggaggaca tgaacgatca tgccattcgc ggcgacacct 15180
ttgccacacg ggcggaggag aagcgcgctg aggcggaggc agcggcagaa gctgccgccc 15240
ccgctgcgca acccgaggtc gagaagcctc agaagaaacc ggtgatcaaa cccctgacag 15300
aggacagcaa gaaacgcagt tacaacctaa taagcaatga cagcaccttc acccagtacc 15360
gcagctggta ccttgcatat aactacggcg accctcagac cgggatccgc tcatggacct 15420
tcctttgcac tctgacgta acctgcggtc cgagcaggt ctactggtcg ttgccagaca 15480
tgatgcaaga cccgtgacc ttccgctcca cgagccagat cagcaacttt ccggtggtgg 15540
gcgccgagct gttgcccgct cactccaaga gcttctacaa cgaccaggcc gtctactccc 15600
agctcatccg ccagtttacc tctctgacct acgtgttcaa tcgctttccc gagaaccaga 15660
ttttggcgcg cccgccagcc cccaccatca ccaccgtcag tgaaaacggt cctgctctca 15720
cagatcacgg gacgctaccg ctgcgcaaca gcatcggagg agtccagcga gtgaccatta 15780
ctgacgccag acgccgcacc tgcccctacg tttacaaggc cctgggcata gtctcgccgc 15840
gcgtcctatc gagccgcact ttttgagcaa acatgtccat ccttatatcg cccagcaata 15900
acacaggctg gggcctgcgc ttccaagca agatgttttg cggggcaaag aagcgctccg 15960
accaacaccc agtgcgcgct cgcgggcact accgcgcgcc ctggggcgcg caciaacgcg 16020
gccgcaactg gcgcaccacc gtcgatgacg ccattgacgc ggtggtggag gaggcgcgca 16080
actacacgcc cagccgcgca ccagtgtcca cagtggacgc ggccattcag accgtggtgc 16140
gcggagcccc gcgttatgct aaaatgaaga gacggcggag gcgcgtagca cgtcgccacc 16200

gccgcccagacc cggcactgcc gcccaacgcg cggcggcgcc cctgcttaac cgcgcacgtc 16260
 gcaccggccg acggggcgcc atgcggggcg ctcgaaggct ggccgcgggt attgtcactg 16320
 tgccccccag gtccaggcga cgagcggccg ccgcagcagc cgcggccatt agtgctatga 16380
 ctcagggctg caggggcaac gtgtactggg tgcgcgactc ggtagcggc ctgcgcgtgc 16440
 ccgtgcgcac ccgcccccg cgcaactaga ttgcaagaaa aaactactta gactcgtact 16500
 gttgtatgta tccagcggcg gcggcgcgca acgaagctat gtccaagcgc aaaatcaaag 16560
 aagagatgct ccaggtcatc gcgccggaga tctatggccc cccgaagaag gaagagcagg 16620
 attacaagcc ccgaaagcta aagcgggtca aaaagaaaaa gaaagatgat gatgatgatg 16680
 aacttgacga cgaggtggaa ctgctgcacg caaccgcgcc caggcggcggt gtacagtggg 16740
 aaggctgcac cgtaagacgt gttttgcgac ccggcaccac cgtagttttt acgcccgggtg 16800
 agcgtccac ccgcacctac aagcgcgtgt atgatgaggt gtacggcgac gaggacctgc 16860
 ttgagcaggc caacgagcgc ctcggggagt ttgcctacgg aaagcggcat aaggacatgt 16920
 tggcgttgcc gctggacgag ggcaacccaa cacctagcct aaagcccgtg aactgcagc 16980
 aggtgctgcc cacgcttgca ccgtccgaag aaaagcgcgg cctaaagcgc gactctggtg 17040
 acttggcacc caccgtgcag ctgatggtac ccaagcgcca gcgactggaa gatgtcttgg 17100
 aaaaaatgac cgtggagcct gggctggagc ccgaggtccg cgtgcggcca atcaagcagg 17160
 tggcaccggg actgggcgtg cagaccgtgg acgttcagat acccaccacc agtagcacta 17220
 gtattgccac tgccacagag ggcatggaga cacaaacgtc cccggttgcc tcggcggtgg 17280
 cagatgccgc ggtgcaggcg gccgctgcgg ccgcgtccaa aacctctacg gaggtgcaaa 17340
 cggaccctg gatgtttcgc gtttcagccc cccggcgccc gcgccgttc aggaagtacg 17400
 gcaccgccag cgcactactg cccgaatatg ccctacatcc ttccatcgcg cctacccccg 17460
 gctatcgtgg ctacacctac cgccccagaa gacgagcgac taccgacgc cgaaccacca 17520
 ctggaacccg ccgcgcgcgt cgccgtcgcc agcccgctgt ggccccgatt tccgtgcgca 17580
 gggcggctcg cgaaggaggc aggaccctgg tgctgccaac agcgcgtac cccccagca 17640
 tcgtttaaaa gccggtcttt gtggttcttg cagatatggc cctcacctgc cgcctccgtt 17700
 tcccgtgccc gggattccga ggaagaatgc accgtaggag gggcatggcc ggccacggcc 17760
 tgacggcgcg catgcgtcgt gcgcaccacc ggcgcgcgcg cgcgtcgac cgtcgcatgc 17820
 gcggcggtat cctgcccctc cttattccac tgatcgccgc ggcgattggc gccgtgcccg 17880
 gaattgcatc cgtggccttg caggcgcaga gacactgatt aaaaacaagt tgcattgtga 17940
 aaaatcaaaa taaaagtct ggagtctcac gtcgcttggt tcctgtaact atttttaga 18000

aattctaaag	ctatgttggg	tcaacaatct	atgccaaaca	gacccaatta	cattgctttc	19860
agggacaatt	ttattggcct	aatgtattat	aacagcactg	gcaacatggg	tgttcttgct	19920
ggtcaggcat	cgcagctaaa	tgccgtggta	gatttgcaag	acagaaacac	agagctgtcc	19980
tatcaactct	tgcttgattc	cataggtgat	agaaccagat	atctttctat	gtggaatcag	20040
gctgtagaca	gctatgatcc	agatgttaga	atcattgaaa	accatggaac	tgaggatgaa	20100
ttgccaaatt	attgttttcc	tcttgggggt	attggggtaa	ctgacaccta	tcaagctatt	20160
aaggctaatt	gcaatggctc	aggcgataat	ggagatacta	catggacaaa	agatgaaact	20220
tttgcaacac	gtaatgaaat	aggagtgggt	aacaactttg	ccatggaaat	taacctaaat	20280
gccaacctat	ggagaaatct	cctttactcc	aatattgccc	tgtacctgcc	agacaagcta	20340
aaatacaacc	ccaccaatgt	ggaaatatct	gacaacccca	acacctacga	ctacatgaac	20400
aagcgagtgg	tggtctccgg	gcttgttagac	tgctacatta	accttggggc	gcgctgggtc	20460
ctggactaca	tggaacaagt	taatcccttt	aaccaccacc	gcaatgcggg	cctccgttat	20520
cgctccatgt	tggtgggaaa	cggccgctac	gtgccctttc	acattcaggt	gccccaaaag	20580
ttttttgcc	ttaaaaacct	cctcctcctg	ccaggtcat	atacatatga	atggaacttc	20640
aggaaggatg	ttaacatggt	tctgcagagc	tctctgggaa	acgatcttag	agttgacggg	20700
gctagcatta	agtttgacag	catttgtctt	tacgccacct	tcttccccat	ggcccacaac	20760
acggcctcca	cgctggaagc	catgctcaga	aatgacacca	acgaccagtc	ctttaatgac	20820
tacctttccg	ccgccaacat	gctatacccc	atacccgcca	acgccaccaa	cgtgcccattc	20880
tccatccccat	cgcgcaactg	ggcagcattt	cgcggttggg	ccttcacacg	cttgaagaca	20940
aaggaaaccc	cttccttggg	atcaggctac	gacccttact	acacctactc	tggtcccata	21000
ccataccttg	acggaacctt	ctatcttaat	cacaccttta	agaaggtggc	cattaccttt	21060
gactcttctg	ttagctggcc	gggcaacgac	cgctgctta	ctcccaatga	gtttgagatt	21120
aaacgctcag	ttgacgggga	gggctacaac	gtagctcagt	gcaacatgac	caaggactgg	21180
ttcctgggtg	agatgttggc	caactacaat	attggctacc	agggttctta	cattccagaa	21240
agctacaagg	accgatgta	ctcgttcttc	agaaacttcc	agcccatgag	ccggcaagtg	21300
gttgacgata	ctaaatacaa	ggagtatcag	caggttggaa	ttcttcacca	gcataacaac	21360
tcaggattcg	taggtacct	cgctcccacc	atgcgcgagg	gacaggctta	ccccgccaac	21420
gtgccctacc	cactaatagg	caaaaccgcg	gttgacagta	ttaccagaa	aaagtttctt	21480
tgcgatcgca	ccctttggcg	catcccattc	tccagtaact	ttatgtccat	gggcgacttc	21540
acagacctgg	gcaaaaacct	tctctacgcc	aactccgccc	acgcgctaga	catgactttt	21600

gaggtggatc	ccatggacga	gccaccctt	ctttatgttt	tgtttgaagt	ctttgacgtg	21660
gtccgtgtgc	accagccgca	ccgcggcgtc	atcgagaccg	tgtacctgcg	cacgcccttc	21720
tcggccggca	acgccacaac	ataaaagaag	caagcaacat	caacaacagc	tgccgccatg	21780
ggctccagtg	agcaggaact	gaaagccatt	gtcaaagatc	ttggttgtgg	gccatatttt	21840
ttgggcacct	atgacaagcg	ctttccaggc	tttgttttctc	cacacaagct	cgctgcgcc	21900
atagtcaata	cggccggtcg	cgagactggg	ggcgtacact	ggatggcctt	tgcttgaac	21960
ccgcgtcaa	aaacatgcta	cctctttgag	ccctttggct	tttctgacca	acgactcaag	22020
caggtttacc	agtttgagta	cgagtcactc	ctgcgccgta	gcgccattgc	ttcttcccc	22080
gaccgctgta	taacgctgga	aaagtccacc	caaagcgtgc	aggggcccaa	ctcggccgcc	22140
tgtggactat	tctgctgcat	gtttctccac	gcctttgcc	actggcccca	aactcccatg	22200
gatcacaacc	ccaccatgaa	ccttattacc	ggggtacca	actccatgct	taacagtccc	22260
caggtagacg	ccaccctgcg	tgcgaaccag	gaacagctct	acagcttcct	ggagcgccac	22320
tcgccctact	tccgcagcca	cagtgcgcag	attaggagcg	ccacttcttt	ttgtcacttg	22380
aaaaacatgt	aaaaataatg	tactaggaga	cactttcaat	aaaggcaaat	gtttttattt	22440
gtacactctc	gggtgattat	ttacccccca	cccttgccgt	ctgcgccgtt	taaaaatcaa	22500
aggggttctg	ccgcgcatcg	ctatgcgcca	ctggcaggga	cacgttgcca	tactggtgtt	22560
tagtgctcca	cttaaactca	ggcacaacca	tccgcggcag	ctcgggtgaag	ttttcactcc	22620
acaggctgcg	caccatcacc	aacgcgttta	gcaggctggg	cgccgatatc	ttgaagtcgc	22680
agttggggcc	tccgccctgc	gcgcgcgagt	tgcgatacac	aggggttgca	cactggaaca	22740
ctatcagcgc	cgggtggtgc	acgctggcca	gcacgctctt	gtcggagatc	agatccgcgt	22800
ccaggctcctc	cgcgttgctc	agggcgaaacg	gagtcaactt	tggtagctgc	cttcccaaaa	22860
agggtgcatg	cccaggcttt	gagttgcact	cgcaccgtag	tggcatcaga	aggtgaccgt	22920
gcccgtctg	ggcgttagga	tacagcgctt	gcatgaaagc	cttgatctgc	ttaaagcca	22980
cctgagcctt	tgcgcttcca	gagaagaaca	tgccgcaaga	cttgccggaa	aactgattgg	23040
ccggacaggc	cgcgtcatgc	acgcagcacc	ttgcgtcggt	gttgagatc	tgaccacat	23100
ttcggcccca	ccggttcttc	acgatcttgg	ccttgctaga	ctgctccttc	agcgcgcgct	23160
gcccgttttc	gctcgtcaca	tccatttcaa	tcacgtgctc	cttatttatc	ataatgctcc	23220
cgtgtagaca	cttaagctcg	ccttcgatct	cagcgcagcg	gtgcagccac	aacgcgcagc	23280
ccgtgggctc	gtggtgcttg	taggttacct	ctgcaaacga	ctgcaggtac	gcctgcagga	23340
atcgccccat	catcgtcaca	aaggctcttg	tgctggtgaa	ggtcagctgc	aaccgcgggt	23400

agcaggccaa acttacctac gaaaaaacca ctaccggcaa ccgcctcagc tacaagctac 30660
ccacccagcg ccaaaaaactg gtgcttatgg tgggagaaaa acctatcacc gtcacccagc 30720
actcggcaga aacagagggc tgectgcact tcccctatca ggggccagag gacctctgca 30780
ctcttattaa aaccatgtgt ggtattagag atcttattcc attcaactaa cataaacaca 30840
caataaatta cttacttaaa atcagtcagc aaatctttgt ccagcttatt cagcatcacc 30900
tcctttcctt cctcccaact ctggatatct agccgccttt tagctgcaaa ctttctccaa 30960
agtttaaatg ggatgtcaaa ttctcatgt tcttgccct ccgcacccac tatcttcata 31020
ttgttgcaaga tgaaacgcgc cagaccgtct gaagacacct tcaaccccggt gtatccatat 31080
gacacagaaa ccgggcctcc aactgtgccc tttcttacct ctccatttgt ttcacccaat 31140
ggtttccaag aaagtcccc tggagttctc tctctacgcg tctccgaacc tttggacacc 31200
tcacacggca tgcttgcgct taaaatgggc agcggctctta ccctagacaa ggccggaaac 31260
ctcacctccc aaaatgtaac cactgttact cagccactta aaaaaacaaa gtcaaacata 31320
agtttggaca cctccgcacc acttacaatt acctcaggcg ccctaacagt ggcaaccacc 31380
gtcctctga tagttactag cggcgctctt agcgtacagt cacaagcccc actgaccgtg 31440
caagactcca aactaagcat tgctactaaa gggcccatca cagtgtcaga tggaaagcta 31500
gccctgcaaa catcagcccc cctctctggc agtgacagcg acacccttac tgtaactgca 31560
tcaccccgcg taactactgc cacgggtagc ttgggcatta acatggaaga tcctatttat 31620
gtaaataatg gaaaaatagg aattaaaata agcggctcct tgcaagtagc acaaaactcc 31680
gatacactaa cagtagttac tggaccaggt gtcaccgttg aaaaaactc ccttagaacc 31740
aaagttgcag gagctattgg ttatgattca tcaaacaaca tggaaattaa aacgggcgggt 31800
ggcatgcgta taaataacaa cttgttaatt ctagatgtgg attacccatt tgatgctcaa 31860
acaaaactac gtcttaaaact ggggcaggga cccctgtata ttaatgcac tcataacttg 31920
gacataaact ataacagagg cctatacctt tttaatgcat caaacaatac taaaaaactg 31980
gaagttagca taaaaaaatc cagtggacta aactttgata atactgccat agctataaat 32040
gcaggaaagg gtctggagtt tgatacaaac acatctgagt ctccagatat caacccaata 32100
aaaactaaaa ttggctctgg cattgattac aatgaaaacg gtgccatgat tactaaactt 32160
ggagcggggt taagctttga caactcaggg gccattacaa taggaaacaa aaatgatgac 32220
aaacttacct tgtggacaac ccagaccca tctcctaact gcagaattca ttcagataat 32280
gactgcaaat ttactttgggt tcttacaaaa tgtgggagtc aagtactagc tactgtagct 32340
gctttggctg tatctggaga tctttcatcc atgacaggca ccgttgcaag tgtagtata 32400

ttccttagat ttgaccaaaa cgggtgttcta atggagaact cctcacttaa aaaacattac 32460
tggaacttta gaaatgggaa ctcaactaat gcaaattccat acacaaatgc agttggattt 32520
atgcctaacc ttctagccta tccaaaaacc caaagtcaaa ctgctaaaaa taacattgtc 32580
agtcaagttt acttgcatgg tgataaaact aaacctatga tacttaccat tacacttaat 32640
ggcactagtg aatccacaga aactagcgag gtaagcactt actctatgtc ttttacatgg 32700
tcctgggaaa gtggaaaata caccactgaa acttttgcta ccaactctta caccttctcc 32760
tacattgccc aggaataaag aatcgtgaac ctgttgcatg ttatgtttca acgtgtttat 32820
ttttcaattg cagaaaattt caagtcattt ttcattcagt agtatagccc caccaccaca 32880
tagcttatat tgatcacogt accttaatca aactcacaga accctagtat tcaacctgcc 32940
acctccctcc caacacacag agtacacagt cctttctccc cggtggcct taaaaagcat 33000
catatcatgg gtaacagaca tattcttagg tggtatattc cacacggttt cctgtcgagc 33060
caaacgctca tcagtgatat taataaactc cccgggcagc tcgcttaagt tcatgtcgct 33120
gtccagctgc tgagccacag gctgctgtcc aacttgcggt tgctcaacgg gcggcgaagg 33180
ggaagtccac gcctacatgg gggtagagtc ataatcgtgc atcaggatag ggcgggtggg 33240
ctgcagcagc gcgcgaataa actgctgccg ccgccgctcc gtccctgcagg aatacaacat 33300
ggcagtggtc tcctcagcga tgattcgcac cgcccgagc atgagacgcc ttgtcctccg 33360
ggcacagcag cgcacctga tctcacttaa atcagcacag taactgcagc acagcaccac 33420
aatattgttc aaaatcccac agtgcaaggc gctgtatcca aagctcatgg cggggaccac 33480
agaacccacg tggccatcat accacaagcg caggtagatt aagtggcgac ccctcataaa 33540
cacgctggac ataaacatta cctcttttgg catgttgtaa ttcaccacct cccggtacca 33600
tataaacctc tgattaaaca tggcgccatc caccaccatc ctaaaccagc tggccaaaac 33660
ctgcccgcgc gctatgcaact gcagggaaacc gggactggaa caatgacagt ggagagccca 33720
ggactcgtaa ccatggatca tcatgctcgt catgatatca atgttggcac aacacaggca 33780
cacgtgcata cacttctca ggattacaag ctctcccg ctcagaacca tatcccaggg 33840
aacaacccat tcctgaatca gcgtaaatcc cactctgcag ggaagacctc gcacgtaact 33900
cacgttgtgc attgtcaaag tggtacattc ggcagcagc ggatgatcct ccagtatggg 33960
agcgcgggtc tctgtctcaa aaggaggtag gcgatcccta ctgtacggag tgcgccgaga 34020
caaccgagat cgtgttggtc gtagtgtcat gccaaatgga acgccggacg tagtcatatt 34080
tcctgaagca aaaccagggt cgggcgtgac aaacagatct gcgtctccgg tctcgtcgct 34140
tagctcgctc tgtgtagtag ttgtagtata tccactctct caaagcatcc aggcgcccc 34200

tggttcg	ttctatgtaa	actccttcat	gcgccgctgc	cctgataaca	tccaccaccg	34260
cagaataagc	cacacccagc	caacctacac	attcggttctg	cgagtcacac	acgggaggag	34320
cgggaagagc	tggaagaacc	atgttttttt	tttttttatt	ccaaaagatt	atccaaaacc	34380
tcaaaatgaa	gatctattaa	gtgaacgcgc	ttccctccgg	tggcgtggtc	aaactctaca	34440
gccaaagaac	agataatggc	atttgtaaga	tgttgacaaa	tggcttccaa	aaggcaaac	34500
gccctcacgt	ccaagtggac	gtaaaggcta	aacccttcag	ggtgaatctc	ctctataaac	34560
attccagcac	cttcaaccat	gcccaaataa	ttttcatctc	gccaccttat	caatatgtct	34620
ctaagcaaat	cccgaatatt	aagtccggcc	attgtaaaaa	tctgctccag	agcgccctcc	34680
accttcagcc	tcaagcagcg	aatcatgatt	gcaaaaattc	aggttcctca	cagacctgta	34740
taagattcaa	aagcggaaaca	ttaacaaaaa	taccgcgac	ccgtaggtcc	cttcgcaggg	34800
ccagctgaac	ataatcgtgc	aggtctgcac	ggaccagcgc	ggccacttcc	ccgccaggaa	34860
ccatgacaaa	agaacccaca	ctgattatga	cacgcatact	cggagctatg	ctaaccagcg	34920
tagcccctat	gtaagcttgt	tgcattggcg	gcgatataaa	atgcaagggtg	ctgctcaaaa	34980
aatcaggcaa	agcctcgcgc	aaaaaagcaa	gcacatcgta	gtcatgctca	tgcagataaa	35040
ggcaggtaag	ttccggaacc	accacagaaa	aagacaccat	ttttctctca	aacatgtctg	35100
cgggttcctg	cattaaacac	aaaataaaaat	aacaaaaaaa	aacatttaaa	cattagaagc	35160
ctgtcttaca	acaggaaaaa	caacccttat	aagcataaga	cggactacgg	ccatgccggc	35220
gtgaccgtaa	aaaaactggt	caccgtgatt	aaaaagcacc	accgacagtt	cctcgggtcat	35280
gtccggagtc	ataatgtaag	actcggtaaa	cacatcaggt	tgggttaacat	cggtcagtgc	35340
taaaaagcga	ccgaaatagc	ccgggggaat	acataccgcg	aggcgtagag	acaacattac	35400
agcccccata	ggaggtataa	caaaattaat	aggagagaaa	aacacataaa	cacctgaaaa	35460
accctcctgc	ctaggcaaaa	tagcaccctc	ccgtctccaga	acaacataca	gcgcttccac	35520
agcggcagcc	ataacagtca	gccttaccag	taaaaaaacc	tattaaaaaa	caccactcga	35580
cacggcacca	gctcaatcag	tcacagtgtg	aaaagggcc	agtacagagc	gagtatatat	35640
aggactaaaa	aatgacgtaa	cgggttaagt	ccacaaaaaa	caccagaaa	accgcacgcg	35700
aacctacgcc	cagaaacgaa	agccaaaaaa	cccacaactt	cctcaaactc	tcacttccgt	35760
tttcccacga	tacgtcactt	cccatTTTTAA	aaaaactaca	attcccaata	catgcaagtt	35820
actccgccct	aaaacctacg	tcacccgcgc	cgttcccacg	ccccgcgcga	cgtcacaaac	35880
tccacccct	cattatcata	ttggcttcaa	tccaaaataa	ggtatattat	gatgatg	35937

<210> 4

<211> 35935

<212> DNA

<213> Human adenovirus type 5

<400> 4

```
catcatcaat aatatacctt attttggatt gaagccaata tgataatgag ggggtggagt      60
ttgtgacgtg gcgcggggcg tgggaacggg gcgggtgacg tagtagtggt gcggaagtgt      120
gatgttgcaa gtgtggcgga acacatgtaa gcgacggatg tggcaaaagt gacgtttttg      180
gtgtgcgcgg gtgtacacag gaagtgacaa ttttcgcgcg gttttaggcg gatgttgtag      240
taaatttggg cgtaaccgag taagatttgg ccattttcgc gggaaaactg aataagagga      300
agtgaaatct gaataatttt gtgttactca tagcgcgtaa tatttgtcta gggccgcggg      360
gactttgacc gtttacgtgg agactcgcgc aggtgttttt ctccaggtgtt ttccgcgttc      420
cgggtcaaag ttggcgtttt attattatag tcagctgacg tgtagtgtat ttatacccg      480
tgagttcctc aagaggccac tcttgagtgc cagcgagtag agttttctcc tccgagccgc      540
tccgacaccg ggactgaaaa tgagacatat tatctgccac ggaggtgtta ttaccgaaga      600
aatggccgcc agtccttttg accagctgat cgaagaggta ctggctgata atcttccacc      660
tcctagccat tttgaaccac ctacccttca cgaactgtat gatttagacg tgacggcccc      720
cgaagatccc aacgaggagg cggtttcgca gatttttccc gactctgtaa tgttggcggt      780
gcaggaaggg attgacttac tcacttttcc gccggcgccc ggttctccgg agccgcctca      840
cctttcccgg cagcccgagc agccggagca gagagccttg ggtccggttt ctatgccaaa      900
ccttgtaccg gaggtgatcg atcttacctg ccacgaggct ggctttccac ccagtgcga      960
cgaggatgaa gagggtgagg agtttgtgtt agattatgtg gagcaccg ggcacgggtg     1020
caggtcctgt cattatcacc ggaggaatac gggggacca gatattatgt gttcgctttg     1080
ctatatgagg acctgtggca tgtttgtcta cagtaagtga aaattatggg cagtgggtga     1140
tagagtgggt ggtttggtgt ggtaattttt tttttaattt ttacagtttt gtggtttaaa     1200
gaattttgta ttgtgatttt tttaaaaggt cctgtgtctg aacctgagcc tgagcccgag     1260
ccagaaccgg agcctgcaag acctaccg cgccctaaaa tggcgccctgc taccctgaga     1320
cgcccgacat cacctgtgtc tagagaatgc aatagtagta cggatagctg tgactccggt     1380
ccttctaaca cacctcctga gatacccg gtggtcccg tgtgccccat taaaccagtt     1440
gccgtgagag ttggtgggcg tcgccaggct gtggaatgta tcgaggactt gcttaacgag     1500
cctgggcaac ctttggaact gagctgtaaa cgccccaggc cataaggtgt aaacctgtga     1560
```

ttgctgtgtg	ggttaacgcc	tttgtttgct	gaatgagttg	atgtaagttt	aataaagggt	1620
gagataatgt	ttaaacttgca	tggcgtgtta	aatggggcgg	ggcttaaagg	gtatataatg	1680
cgccgtgggc	taatcttggg	tacatctgac	ctcatggagg	cttgggagtg	tttggaagat	1740
ttttctgctg	tgcgtaactt	gctggaacag	agctctaaca	gtacctcttg	gttttgagg	1800
tttctgtggg	gctcatccca	ggcaaagtta	gtctgcagaa	ttaaggagga	ttacaagtgg	1860
gaatttgaag	agcttttgaa	atcctgtggt	gagctgtttg	attctttgaa	tctgggtcac	1920
caggcgcttt	tccaagagaa	ggcatcaag	actttggatt	ttccacacc	ggggcgcgct	1980
gcggctgctg	ttgctttttt	gagttttata	aaggataaat	ggagcgaaga	aacccatctg	2040
agcggggggg	acctgctgga	ttttctggcc	atgcatctgt	ggagagcggg	tgtgagacac	2100
aagaatcgcc	tgctactggt	gtcttcctgc	cgcccgcgga	taataccgac	ggaggagcag	2160
cagcagcagc	aggaggaagc	caggcggcgg	cggcaggagc	agagcccatg	gaacccgaga	2220
gccggcctgg	accctcgga	atgaatgttg	tacagggtgg	tgaactgtat	ccagaactga	2280
gacgcatttt	gacaattaca	gaggatgggc	aggggctaaa	gggggttaaag	aggagcggg	2340
gggcttgtga	ggctacagag	gaggctagga	atctagcttt	tagcttaatg	accagacacc	2400
gtcctgagtg	tattactttt	caacagatca	aggataattg	cgctaatgag	cttgatctgc	2460
tggcgcagaa	gtattccata	gagcagctga	ccacttactg	gctgcagcca	ggggatgatt	2520
ttgaggaggc	tattagggtta	tatgcaaagg	tggcacttag	gccagattgc	aagtacaaga	2580
tcagcaaact	tgtaaatatc	aggaattgtt	gctacatttc	tgggaacggg	gccgaggtgg	2640
agatagatac	ggaggatagg	gtggccttta	gatgtagcat	gataaatatg	tggccggggg	2700
tgcttggcat	ggacgggggtg	gttattatga	atgtaagggt	tactggcccc	aattttagcg	2760
gtacggtttt	cctggccaat	accaacctta	tcctacacgg	tgtaagcttc	tatgggttta	2820
acaatacctg	tgtggaagcc	tggaccgatg	taagggttcg	gggctgtgcc	ttttactgct	2880
gctggaaggg	ggtggtgtgt	cgccccaaaa	gcaggggcttc	aattaagaaa	tgcctctttg	2940
aaagggtgtac	cttgggtatc	ctgtctgagg	gtaactccag	ggtgcgccac	aatgtggcct	3000
ccgactgtgg	ttgcttcatg	ctagtgaaaa	gcgtggctgt	gattaagcat	aacatgggat	3060
gtggcaactg	cgaggacagg	gcctctcaga	tgctgacctg	ctcggacggc	aactgtcacc	3120
tgctgaagac	cattcacgta	gccagccact	ctcgcaaggc	ctggccagtg	tttgagcata	3180
acatactgac	ccgctgttcc	ttgcatttgg	gtaacaggag	gggggtgttc	ctaccttacc	3240
aatgcaattt	gagtcacact	aagatattgc	ttgagcccga	gagcatgtcc	aagggtgaacc	3300
tgaacggggg	gtttgacatg	accatgaaga	tctggaagg	gctgaggtac	gatgagaccc	3360

gcagttccag	gcgggtccac	agctcgggtca	cctgctctac	ggcatctcga	tccagcatat	5220
ctcctcgttt	cgcggttgg	ggcggtttc	gctgtacggc	agtagtcggt	gctcgtccag	5280
acgggccagg	gtcatgtctt	tccacgggcg	caggggtcctc	gtcagcgtag	tctgggtcac	5340
ggtgaagggg	tgcgtccgg	gctgcgcgct	ggccaggggtg	cgcttgaggc	tggctctgct	5400
ggtgctgaag	cgctgccggt	cttcgccctg	cgcgtcggcc	aggtagcatt	tgaccatggt	5460
gtcatagtcc	agccccctccg	cggcgtggcc	cttggcgcgc	agcttgccct	tggaggaggc	5520
gccgcacgag	gggcagtgca	gacttttgag	ggcgtagagc	ttgggcgcga	gaaataccga	5580
ttccggggag	taggcattccg	cgccgcaggc	cccgcagacg	gtctcgcatt	ccacgagcca	5640
ggtgagctct	ggccgttcgg	ggtcaaaaac	caggtttccc	ccatgctttt	tgatgcgttt	5700
cttacctctg	gtttccatga	gccggtgtcc	acgctcgggtg	acgaaaaggc	tgtccgtgtc	5760
cccgtataca	gacttgagag	gcctgtcctc	gagcgggtgtt	ccgcggtcct	cctcgtatag	5820
aaactcggac	cactctgaga	caaaggctcg	cgtccaggcc	agcacgaagg	aggctaagtg	5880
ggaggggtag	cggtcgttgt	ccactagggg	gtccactcgc	tccagggtgt	gaagacacat	5940
gtcgccctct	tggcatcaa	ggaaggtgat	tggtttgtag	gtgtaggcca	cgtgaccggg	6000
tgttcctgaa	ggggggctat	aaaaggggggt	gggggcgcgt	tcgtcctcac	tctcttcgc	6060
atcgctgtct	gcgagggcca	gctgttgggg	tgagtactcc	ctctgaaaag	cgggcatgac	6120
ttctgcgcta	agattgtcag	tttccaaaaa	cgaggaggat	ttgatattca	cctggcccgc	6180
ggtgatgcct	ttgaggggtg	ccgcattccat	ctggtcagaa	aagacaatct	ttttgttgtc	6240
aagcttggtg	gcaaacgacc	cgtagagggc	gttggacagc	aacttggcga	tggagcgcag	6300
ggtttggttt	ttgtcgcgat	cggcgcgctc	cttggccgcg	atgttttagct	gcacgtattc	6360
gcgcgcaacg	caccgccatt	cgggaaagac	ggtggtgcgc	tcgtcgggca	ccaggtgcac	6420
gcgccaaccg	cggttggtgca	gggtgacaag	gtcaacgctg	gtggctacct	ctccgcgtag	6480
gcgctcgttg	gtccagcaga	ggcggccgcc	cttgcgcgag	cagaatggcg	gtagggggtc	6540
tagctgcgtc	tcgtccgggg	ggtctgcgtc	cacggtaaag	accccgggca	gcaggcgcgc	6600
gtcgaagtag	tctatcttgc	atccttgcaa	gtctagcgcc	tgctgccatg	cgcgggcggc	6660
aagcgcgcgc	tcgtatgggt	tgagtggggg	accccatggc	atgggggtggg	tgagcgcgga	6720
ggcgtacatg	ccgcaaattgt	cgtaaacgta	gaggggctct	ctgagtattc	caagatatgt	6780
agggtagcat	cttcaccgc	ggatgctggc	gcgcacgtaa	tcgtatagtt	cgtgcgaggg	6840
agcgaggagg	tcgggaccga	ggttgctacg	ggcgggctgc	tctgctcgga	agactatctg	6900
cctgaagatg	gcatgtgagt	tggatgatat	ggttggaacg	tggaagacgt	tgaagctggc	6960

gtctgtgaga cctaccgcgt cacgcacgaa ggaggcgtag gagtcgcgca gcttgttgac	7020
cagctcggcg gtgacctgca cgtctagggc gcagtagtcc agggtttcct tgatgatgtc	7080
atacttatcc tgtccctttt tttccacag ctccgcggttg aggacaaact cttcgcggtc	7140
ttccagtac tcttgatcg gaaacccgtc ggccctccgaa cggtaagagc ctagcatgta	7200
gaactgggtg acggcctggt aggcgcagca tcccttttct acgggtagcg cgtatgcctg	7260
cgcggccttc cggagcgagg tgtgggtgag cgcaaagggtg tccctgacca tgactttgag	7320
gtactggtat ttgaagtcag tgcgctcgca tccgccctgc tcccagagca aaaagtccgt	7380
gcgctttttg gaacgcggat ttggcagggc gaagggtgaca tcgttgaaga gtatctttcc	7440
cgcgcgaggc ataaagttgc gtgtgatgcg gaagggtccc ggcacctcg aacggttgtt	7500
aattacctgg gcggcgagca cgatctcgtc aaagccgttg atgttggtggc ccacaatgta	7560
aagttccaag aagcgcgga tgcccttgat ggaaggcaat tttttaagtt cctcgtaggt	7620
gagctcttca ggggagctga gcccggtgctc tgaaagggcc cagtctgcaa gatgagggtt	7680
ggaagcgacg aatgagctcc acaggtcacg ggccattagc atttgaggt ggtcgcgaaa	7740
ggtcctaacc tggcgacctg tggccatttt ttctgggggtg atgcagtaga aggtaagcgg	7800
gtcttgttcc cagcgggtccc atccaagggt cgcggttagg tctcgcgcgg cagtcactag	7860
aggctcatct ccgccgaact tcatgaccag catgaagggc acgagctgct tcccaaaggc	7920
ccccatccaa gtataggtct ctacatcgta ggtgacaaag agacgctcgg tgcgaggatg	7980
cgagccgatc gggaagaact ggatctcccc ccaccaattg gaggagtggc tattgatgtg	8040
gtgaaagtag aagtccctgc gacggggcga aactcgtgc tggcttttgt aaaaacgtgc	8100
gcagtactgg cagcgggtgca cgggctgtac atcctgcacg aggttgacct gacgaccgcg	8160
cacaaggaag cagagtggga atttgagccc ctccgctggc gggtttggt ggtggtcttc	8220
tacttcgget gcttgtcctt gaccgtctgg ctgctcgagg ggagttacgg tggatcggac	8280
caccacgccg cgcgagccca aagtccagat gtccgcgcgc ggcggtcgga gcttgatgac	8340
aacatcgcg agatgggagc tgtccatggt ctggagctcc cgcggcgtca ggtcaggcgg	8400
gagctcctgc aggtttacct cgcatagacg ggtcagggcg cgggctagat ccagggtgata	8460
cctaatttcc aggggctggt tgggtggcggc gtcgatggct tgcaagaggc cgcacccccg	8520
cggcgcgact acggtaccgc gcggcgggcg gtgggccgcg ggggtgtcct tggatgatgc	8580
atctaaaagc ggtgacgcgg gcgagccccc ggaggtaggg ggggctccgg acccgccggg	8640
agagggggca ggggcacgtc ggcgccgcgc gcgggcagga gctggtgctg cgcgcgtagg	8700
ttgctggcga acgcgacgac gcggcggttg atctcctgaa tctgggcct ctgcgtgaag	8760

acgacggggc cggtagagctt gagcctgaaa gagagttcga cagaatcaat ttcgggtgtcg 8820
 ttgacggcgg cctggcgcaa aatctcctgc acgtctcctg agttgtcttg ataggcgatc 8880
 tcggccatga actgctcgat ctcttcctcc tggagatctc cgcgtccggc tcgctccacg 8940
 gtggcggcga ggtcgttggg aatgcggggc atgagctgcg agaaggcggt gaggcctccc 9000
 tcgttccaga cggggtgta gaccacggcc ccttcggcat cgggggcgcg catgaccacc 9060
 tgcgcgagat tgagctccac gtgccgggcg aagacggcgt agtttcgcag gcgctgaaag 9120
 aggtagttga gggtaggtggc ggtgtgttct gccacgaaga agtacataac ccagcgtcgc 9180
 aacgtggatt cgttgatatc ccccaaggcc tcaaggcgct ccatggcctc gtagaagtcc 9240
 acggcgaaagt tgaaaaactg ggagttgctc gccgacacgg ttaactcctc ctccagaaga 9300
 cggatgagct cggcgacagt gtcgcgcacc tcgcgctcaa aggctacagg ggcctcttct 9360
 tcttcttcaa tctctcttc cataagggcc tccccttctt cttcttcttg cggcggtggg 9420
 ggagggggga cacggcgggc acgacggcgc accgggaggg ggtcgacaaa gcgctcgatc 9480
 atctccccgc ggcgacggcg catggtctcg gtgacggcgc ggcggttctc gcgggggcgc 9540
 agttggaaga cgcgcggcgt catgtcccg ttatgggttg gcggggggct gccatgcggc 9600
 agggatacgg cgttaacgat gcatctcaac aattgttgtg taggtactcc gccgccgagg 9660
 gacctgagcg agtcgcgcatc gaccggatcg gaaaacctct cgagaaaggc gtctaaccag 9720
 tcacagtcgc aaggtaggct gagcaccgtg gcgggcggca gcgggcggcg gtcgggggtg 9780
 tttctggcgg aggtgctgct gatgatgtaa ttaaagtagg cggctctgag acggcggatg 9840
 gtcgacagaa gcaccatgtc cttgggtccg gcctgctgaa tgcgcaggcg gtcggccatg 9900
 cccagggctt cgttttgaca tcggcgagg tctttgtagt agtcttgcat gagccttctc 9960
 accggcaact cttcttctcc ttctcttctt cctgcatctc ttgcatctat cgctgcggcg 10020
 gcggcggagt ttggcgtag gtggcgccct cttcctccca tgcgtgtgac cccgaagccc 10080
 ctcatcggct gaagcagggc taggtcggcg acaacgcgct cggctaatat ggcctgctgc 10140
 acctgcgtga gggtagactg gaagtcatcc atgtccacaa agcggtggtg tgcgcccgtg 10200
 ttgatgggtg aagtgcagtt ggccataacg gaccagttaa cggctctggtg acccggctgc 10260
 gagagctcgg tgtacctgag acgcgagtaa gccctcgagt caaatacgta gtcgttgcaa 10320
 gtccgcacca ggtactggta tcccaccaa aagtgcggcg gcggctggcg gtagaggggc 10380
 cagcgtaggg tggcgggggc tccggggggc agatcttcca acataaggcg atgatatccg 10440
 tagatgtacc tggacatcca ggtgatgccg gcggcggtgg tggaggcgcg cggaaagtcg 10500
 cggacgcggt tccagatgtt gcgcagcggc aaaaagtgtc ccatgggtcg gacgctctgg 10560

ccggtcaggc gcgcgcaatc gttgacgctc tagaccgtgc aaaaggagag cctgtaagcg 10620
ggcactcttc cgtggtctgg tggataaatt cgcaagggtg tcatggcgga cgaccggggt 10680
tcgagccccg tatccggccg tccgccgtga tccatgcggt taccgccccg gtgtcgaacc 10740
caggtgtgcg acgtcagaca acgggggagt gtcctttttg gcttccttcc aggcgcggcg 10800
gctgctgcgc tagctttttt ggccactggc cgcgcgacgc gtaagcgggt aggctggaaa 10860
gcgaaagcat taagtggctc gctccctgta gccggagggt tattttccaa gggttgagtc 10920
gcgggacccc cggttcgagt ctcggaaccg ccggactgcg gcgaacgggg gtttgcctcc 10980
ccgtcatgca agaccccgtc tgcaaattcc tccggaaaca gggacgagcc ccttttttgc 11040
ttttcccaga tgcattccgt gctgcggcag atgcgcccc ctcctcagca gcggcaagag 11100
caagagcagc ggcagacatg cagggcaccc tcccctctc ctaccgcgtc aggaggggcg 11160
acatccgcgg ttgacgcggc agcagatggt gattacgaac cccgcggcg ccgggcccgcg 11220
cactacctgg acttggagga gggcgagggc ctggcgcggc taggagcgcc ctctcctgag 11280
cggtagccaa gggtagcagt gaagcgtgat acgcgtgagg cgtacgtgcc gcggcagaac 11340
ctgtttcgcg accgcgaggg agaggagccc gaggagatgc gggatcgaaa gttccacgca 11400
gggcgcgagc tgcggcatgg cctgaatcgc gagcggttgc tgcgcgagga ggactttgag 11460
cccgcgcgc gaaccgggat tagtcccgcg cgcgcacacg tggcgggccg cgacctggta 11520
accgcatacg agcagacggt gaaccaggag attaaccttc aaaaaagctt taacaaccac 11580
gtgcgtacgc ttgtggcgcg cgaggagggt gctataggac tgatgcatct gtgggacttt 11640
gtaagcgcgc tggagcaaaa cccaaatagc aagccgctca tggcgagct gttccttata 11700
gtgcagcaca gcagggacaa cgaggcattc agggatgcgc tgctaaacat agtagagccc 11760
gagggccgct ggctgctcga tttgataaac atcctgcaga gcatagtggg gcaggagcgc 11820
agcttgagcc tggttgacaa ggtggccgcc atcaactatt ccatgcttag cctgggcaag 11880
ttttacgccc gcaagatata ccatacccct tacgttccca tagacaagga ggtaaagatc 11940
gaggggttct acatgcgcat ggcgctgaag gtgcttacct tgagcgacga cctgggcggt 12000
tatcgcaacg agcgcattca caaggccgtg agcgtgagcc ggcggcgcca gctcagcgac 12060
cgcgagctga tgcacagcct gcaaagggcc ctggctggca cgggcagcgg cgatagagag 12120
gccgagtcct actttgacgc gggcgctgac ctgcgctggg cccaagccg acgcgccttg 12180
gaggcagctg gggccggacc tgggctggcg gtggcaccg cgcgcgctgg caacgtcggc 12240
ggcgtggagg aatatgacga ggacgatgag tacgagccag aggacggcga gtactaagcg 12300
gtgatgtttc tgatcagatg atgcaagacg caacggaccc ggcggtgcgg gcggcgctgc 12360

agagccagcc	gtccggcctt	aactccacgg	acgactggcg	ccaggtcatg	gaccgcatca	12420
tgtcgtgac	tgcgcgaat	cctgacgcgt	tccggcagca	gccgcaggcc	aaccggctct	12480
ccgcaattct	ggaagcgggtg	gtcccggcgc	gcgcaaacc	cacgcacgag	aagggtgctg	12540
cgatcgtaaa	cgcgctggcc	gaaaacagg	ccatccggcc	cgacgaggcc	ggccttgtct	12600
acgacgcgct	gcttcagcgc	gtggctcggt	acaacagcgg	caacgtgcag	accaacctgg	12660
accggctggt	gggggatgtg	cgcgaggccg	tggcgcagcg	tgagcgcgcg	cagcagcagg	12720
gcaacctggg	ctccatgggt	gcactaaacg	ccttcctgag	tacacagccc	gccaacgtgc	12780
cgcggggaca	ggaggactac	accaactttg	tgagcgcact	gcggctaata	gtgactgaga	12840
caccgcaaag	tgagggtgtac	cagtctgggc	cagactatct	tttccagacc	agtagacaag	12900
gcctgcagac	cgtaaacctg	agccaggctt	tcaaaaactt	gcaggggctg	tgggggggtg	12960
gggctccac	aggcgaccgc	gcgaccgtgt	ctagcttget	gacgccaac	tcgcgcctgt	13020
tgtgtgtgt	aatagcgcgc	ttcacggaca	gtggcagcgt	gtcccgggac	acatacctag	13080
gtcacttgct	gacactgtac	cgcgaggcca	taggtcaggc	gcatgtggac	gagcatactt	13140
tccaggagat	tacaagtgtc	agccgcgcgc	tggggcagga	ggacacgggc	agcctggagg	13200
caaccctaaa	ctacctgctg	accaaccggc	ggcagaagat	cccctcgctt	cacagtttaa	13260
acagcgagga	ggagcgcatt	ttgcgctacg	tgacgcagag	cgtgagcctt	aacctgatgc	13320
gcgacgggg	aacgcccagc	gtggcgctgg	acatgaccgc	gcgcaacatg	gaaccgggca	13380
tgtatgcctc	aaaccggccg	tttatcaacc	gcctaataga	ctacttgcac	cgcgcggccg	13440
ccgtgaaccc	cgagtatttc	accaatgcca	tcttgaaccc	gcaactggct	ccgccccctg	13500
gtttctacac	cgggggatcc	gaggtgccc	agggtaacga	tggattcctc	tgggacgaca	13560
tagacgacag	cgtgttttcc	ccgcaaccgc	agaccctgct	agagttgcaa	cagcgcgagc	13620
aggcagaggc	ggcgtgcga	aaggaaagct	tccgcaggcc	aagcagcttg	tccgatctag	13680
gcgctgcggc	cccgcgggtc	gatgctagta	gcccatttcc	aagcttgata	gggtctctta	13740
ccagcactcg	caccaccgcg	cgcgcctgc	tgggcgagga	ggagtaccta	aacaactcgc	13800
tgctgcagcc	gcagcgcgaa	aaaaacctgc	ctccggcatt	tccaacaac	gggatagaga	13860
gcctagtggg	caagatgagt	agatggaaga	cgtagcgcga	ggagcacagg	gacgtgccag	13920
gccgcgccc	gccaccctgt	cgtcaaaggc	acgaccgtca	gcggggctct	gtgtgggagg	13980
acgatgactc	ggcagacgac	agcagcgtcc	tggatttggg	agggagtggc	aaccgctttg	14040
cgcaccttcg	ccccaggctg	gggagaatgt	tttaaaaaaa	aaaaagcatg	atgcaaaata	14100
aaaaactcac	caaggccatg	gcaccgagcg	ttggttttct	tgtattcccc	ttagtatgcg	14160

gcgcgcggcg atgtatgagg aaggtcctcc tccctcctac gagagtgtgg tgagcgcggc 14220
 gccagtggcg gggcgctgg gttctccctt cgatgctccc ctggaccgcg cgtttgtgcc 14280
 tccgcggtac ctgcggccta cgggggggag aaacagcatc cgttactctg agttggcacc 14340
 cctattcgac accaccctg tgtacctggg ggacaacaag tcaacggatg tggcatccct 14400
 gaactaccag aacgaccaca gcaactttct gaccacggtc attcaaaaca atgactacag 14460
 cccgggggag gcaagcacac agaccatcaa tcttgacgac cggtcgcact ggggcggcga 14520
 cctgaaaacc atcctgcata ccaacatgcc aaatgtgaac gagttcatgt ttaccaataa 14580
 gtttaaggcg cgggtgatgg tgtcgcgctt gcctactaag gacaatcagg tggagctgaa 14640
 atacgagtgg gtggagttca cgctgcccga gggcaactac tccgagacca tgaccataga 14700
 ccttatgaac aacgcgatcg tggagcacta cttgaaagtg ggcagacaga acggggttct 14760
 ggaaagcgac atcggggtaa agtttgacac ccgcaacttc agactggggg ttgacccctg 14820
 cactggtctt gtcatgcctg gggatatata aaacgaagcc ttccatccag acatcatttt 14880
 gctgccagga tgcgggggtg acttcacca cagccgcctg agcaacttgt tgggcatccg 14940
 caagcggcaa cccttccagg agggctttag gatcacctac gatgatctgg aggggtggtaa 15000
 cattcccga ctggttgatg tggacgccta ccaggcgagc ttgaaagatg acaccgaaca 15060
 gggcgggggt ggcgcaggcg gcagcaacag cagtggcagc ggcgcggaag agaactccaa 15120
 cgcggcagcc gcggcaatgc agccggtgga ggacatgaac gatcatgcca ttcgcggcga 15180
 cacctttgcc acacgggctg aggagaagcg cgctgaggcc gaagcagcgg ccgaagctgc 15240
 cgccccgct gcgcaaccgc aggtcgagaa gcctcagaag aaaccgggtga tcaaaccctt 15300
 gacagaggac agcaagaaac gcagttacaa cctaataagc aatgacagca ctttcacca 15360
 gtaccgcagc tgggtacctg catacaacta cggcgaccct cagaccggaa tccgctcatg 15420
 gacctgctt tgcactcctg acgtaacctg cggctcggag caggtctact ggtcgttgcc 15480
 agacatgatg caagaccccg tgaccttccg ctccacgcgc cagatcagca actttccgg 15540
 ggtgggcgcc gagctgttgc ccgtgcactc caagagcttc tacaacgacc aggccgtcta 15600
 ctcccaactc atccgccagt ttacctctt gaccacgtg ttcaatcgtt tcccagagaa 15660
 ccagattttg gcgcgcccgc cagccccac catcaccacc gtcagtga aa acgttcctgc 15720
 tctcacagat cacgggacgc taccgtgcg caacagcatc ggaggagtcc agcgagtgc 15780
 cattactgac gccagacgcc gcacctgcc ctacgtttac aaggccctgg gcatagtctc 15840
 gccgcgcgtc ctatcgagcc gcactttttg agcaagcatg tccatcctta tatcgcccag 15900
 caataacaca ggctggggcc tgcgcttccc aagcaagatg tttggcgggg ccaagaagcg 15960

ctccgaccaa caccagtgcc gcgtgctgccc gcactaccgc gcgccctggg gcgcgcacaa 16020
acgcggccgc actgggcccga ccaccgtcga tgacgccatc gacgcgggtgg tggaggaggc 16080
gcgcaactac acgcccacgc cgcaccagt gtccacagtg gacgcggcca ttcagaccgt 16140
ggtgctgccc gcccgccgct atgctaaaat gaagagacgc cggaggcgcg tagcacgtcg 16200
ccaccgcccgc cgacccggca ctgccgccc acgcgcggcg gcggccctgc ttaaccgcgc 16260
acgtcgcacc ggccgacggg cggccatgcg ggccgctcga aggtgggccc cgggtattgt 16320
cactgtgccc ccaggtcca ggcgacgagc ggccgcccga gcagccgcgg ccattagtgc 16380
tatgactcag ggtcgcaggg gcaacgtgta ttgggtgccc gactcgggta gcggcctgcg 16440
cgtgcccgtg cgcacccgcc ccccgcgcaa ctagattgca agaaaaaact acttagactc 16500
gtactgttgt atgtatccag cggcgccggc gcgcaacgaa gctatgtcca agcgcaaaat 16560
caaagaagag atgtccagc tcatcgccc ggagatctat ggccccccga agaaggaaga 16620
gcaggattac aagccccgaa agctaaagcg ggtcaaaaag aaaaagaaag atgatgatga 16680
tgaacttgac gacgaggtgg aactgctgca cgctaccgcg ccagggcgac gggtagagt 16740
gaaaggtcga cgcgtaaaac gtgttttgcg acccgccacc accgtagtct ttacggcccg 16800
tgagcgctcc acccgcacct acaagcgct gtatgatgag gtgtacggcg acgaggacct 16860
gcttgagcag gccaacgagc gcctcgggga gtttgcctac ggaaagcggc ataaggacat 16920
gctggcgctg ccgctggacg agggcaaccc aacacctagc ctaaagcccg taacactgca 16980
gcaggtgctg cccgcgcttg caccgtccga agaaaagcgc ggccctaaagc gcgagtctgg 17040
tgacttgcca cccaccgtgc agctgatggg acccaagcgc cagcgactgg aagatgtctt 17100
ggaaaaaatg accgtggaac ctgggctgga gcccagagtc cgcgtgcccg caatcaagca 17160
ggtggcgccc ggactgggcg tgcagaccgt ggacgttcag ataccacta ccagtagcac 17220
cagtattgcc accgccacag agggcatgga gacacaaacg tccccggttg cctcagcggt 17280
ggcggatgcc gcggtgcagg cggctcgtgc ggccgctcc aagacctcta cggaggtgca 17340
aacggacccg tggatgtttc gcgtttcagc ccccgccgc cgcgcgggtt cgaggaagta 17400
cggcgccgcc agcgcgctac tgccgaata tgccctacat ccttcattg cgcctacccc 17460
cggctatcgt ggctacacct accgccccag aagacgagca actaccgcac gccgaaccac 17520
cactggaacc cgcgcgcgc gtcgcgctcg ccagcccgct ctggccccga tttccgtgcg 17580
cagggtggct cgcgaaggag gcaggacct ggtgctgcca acagcgcgct accaccccag 17640
catcgtttaa aagccggtct ttgtggttct tgcagatatg gccctcacct gccgcctccg 17700
tttcccgtg cccggattcc gaggaagaat gcaccgtagg aggggcatgg ccggccacgg 17760

cctgacgggc	ggcatgcgtc	gtgcgcacca	ccggcggcgg	cgcgcgtcgc	accgtcgc	17820
gcgcggcggt	atcctgcccc	tccttattcc	actgatcgcc	gcggcgattg	gcgccgtgcc	17880
cggaattgca	tccgtggcct	tgcaggcgca	gagacactga	ttaaaaacaa	gttgcattgtg	17940
gaaaaatcaa	aataaaaagt	ctggactctc	acgctcgctt	ggtcctgtaa	ctatttttga	18000
gaatggaaga	catcaacttt	gcgtctctgg	ccccgcgaca	cggctcgcgc	ccgttcatgg	18060
gaaactggca	agatatcggc	accagcaata	tgagcgggtg	cgccttcagc	tggggctcgc	18120
tgtggagcgg	cattaaaaat	ttcggttcca	ccgttaagaa	ctatggcagc	aaggcctgga	18180
acagcagcac	agggccagatg	ctgagggata	agttgaaaga	gcaaaatttc	caacaaaagg	18240
tggtagatgg	cctggcctct	ggcattagcg	gggtgggtgga	cctggccaac	caggcagtg	18300
aaaataagat	taacagtaag	cttgatcccc	gccctcccgt	agaggagcct	ccaccggccg	18360
tggagacagt	gtctccagag	gggcgtggcg	aaaagcgtcc	gcgccccgac	agggaagaaa	18420
ctctggtgac	gcaaatagac	gagcctccct	cgtacgagga	ggcactaaag	caaggcctgc	18480
ccaccaccgc	tcccatcgcg	cccatggcta	ccggagtgtc	gggccagcac	acaccgtaa	18540
cgttggacct	gcctcccccc	gccgacaccc	agcagaaacc	tgtgctgcca	ggccccgaccg	18600
ccgttgttgt	aaccgcctct	agccgcgcgt	ccctgcgcgc	cgccgccagc	ggtccgcgat	18660
cgttgcggcc	cgtagccagt	ggcaactggc	aaagcacact	gaacagcatc	gtgggtctgg	18720
gggtgcaatc	cctgaagcgc	cgacgatgct	tctgaatagc	taacgtgtcg	tatgtgtgtc	18780
atgtatgcgt	ccatgtcgcc	gccagaggag	ctgctgagcc	gccgcgcgcc	cgctttccaa	18840
gatggctacc	ccttcgatga	tgcgcagtg	gtcttacatg	cacatctcgg	gccaggacgc	18900
ctcggagtac	ctgagccccg	ggctgggtga	gtttgccgcg	gccaccgaga	cgtacttcag	18960
cctgaataac	aagtttagaa	acccacgggt	ggcgcctacg	cacgacgtga	ccacagaccg	19020
gtcccagcgt	ttgacgctgc	ggttcatccc	tgtggaccgt	gaggatactg	cgtactcgta	19080
caaggcgcgg	ttcacccctag	ctgtgggtga	taaccgtgtg	ctggacatgg	cttcacgta	19140
ctttgacatc	cgcggcgtgc	tggacagggg	ccctactttt	aagccctact	ctggcactgc	19200
ctacaacgcc	ctggctccca	agggtgcccc	aaatccttgc	gaatgggatg	aagctgctac	19260
tgtctttgaa	ataaacctag	aagaagagga	cgatgacaac	gaagacgaag	tagacgagca	19320
agctgagcag	caaaaaactc	acgtatttgg	gcaggcgcct	tattctggta	taaatattac	19380
aaaggagggt	attcaaatag	gtgtcgaagg	tcaaacacct	aaatatgccg	ataaaacatt	19440
tcaacctgaa	cctcaaatag	gagaatctca	gtggtacgaa	actgaaatta	atcatgcagc	19500
tgggagagtc	cttaaaaaaga	ctaccccaat	gaaacctatg	tacggttcat	atgcaaaacc	19560

atcataatgc	ttccgtgtag	acacttaagc	tcgccttoga	tctcagcgca	gcggtgcagc	23220
cacaacgcgc	agcccgtggg	ctcgtgatgc	ttgtaggtca	cctctgcaaa	cgactgcagg	23280
tacgcctgca	ggaatcgccc	catcatcgtc	acaaaggtct	tgttgctggg	gaaggtcagc	23340
tgcaacccgc	ggtgctcctc	gttcagccag	gtcttgcata	cggccgccag	agcttccact	23400
tggtcaggca	gtagtttgaa	gttcgccttt	agatcgttat	ccacgtggta	cttggtccatc	23460
agcgcgcgcg	cagcctccat	gcccttctcc	cacgcagaca	cgatcggcac	actcagcggg	23520
ttcatcaccg	taatttccact	ttccgcttcg	ctgggctctt	cctcttctct	ttgcgtccgc	23580
ataccacgcg	ccactgggtc	gtcttcattc	agccgcgcga	ctgtgcgctt	acctcctttg	23640
ccatgcttga	ttagcaccgg	tgggttgctg	aaaccaccca	tttgtagcgc	cacatcttct	23700
ctttcttctc	cgctgtccac	gattacctct	ggtgatggcg	ggcgctcggg	cttgggagaa	23760
gggcgcttct	ttttcttctt	gggcgcaatg	gccaaatccg	ccgccgaggt	cgatggccgc	23820
gggctgggtg	tgcgcggcac	cagcgctct	tgtgatgagt	cttcctcgtc	ctcggactcg	23880
atacgccgcc	tcatccgctt	ttttgggggc	gcccggggag	gcggcggcga	cggggacggg	23940
gacgacacgt	cctccatggt	tgggggacgt	cgcgccgcac	cgcgtccgcg	ctcgggggtg	24000
gtttcgcgct	gctcctcttc	ccgactggcc	atttccttct	cctataggca	gaaaaagatc	24060
atggagtcag	tcgagaagaa	ggacagccta	accgccccct	ctgagttcgc	caccaccgcc	24120
tccaccgatg	ccgccaacgc	gcctaccacc	ttcccgcgtg	aggcaccccc	gcttgaggag	24180
gaggaagtga	ttatcgagca	ggaccaggt	tttgtaagcg	aagacgacga	ggaccgctca	24240
gtaccaacag	aggataaaaa	gcaagaccag	gacaacgcag	aggcaaacga	ggaacaagtc	24300
gggcgggggg	acgaaaggca	tggcgactac	ctagatgtgg	gagacgacgt	gctgttgaa	24360
catctgcagc	gccagtgcgc	cattatctgc	gacgcgttgc	aagagcgcac	cgatgtgccc	24420
ctcgccatag	cggatgtcag	ccttgcttac	gaacgccacc	tattctcacc	gcgcgtaccc	24480
cccaaacgcc	aagaaaacgg	cacatgcgag	cccaaccgcg	gcctcaactt	ctaccccgtg	24540
tttgccgtgc	cagaggtgct	tgccacctat	cacatctttt	tccaaaactg	caagataccc	24600
ctatcctgcc	gtgccaaccg	cagccgagcg	gacaagcagc	tggccttgcg	gcagggcgct	24660
gtcatacctg	atatcgcttc	gctcaacgaa	gtgccaaaaa	tctttgaggg	tcttgagcgc	24720
gacgagaagc	gcgcggcaaa	cgctctgcaa	caggaaaaca	gcgaaaatga	aagtcactct	24780
ggagtgttgg	tggaactcga	gggtgacaac	gcgcgcctag	ccgtactaaa	acgcagcatc	24840
gaggtcacc	actttgccta	cccggcactt	aacctacccc	ccaaggtcat	gagcacagtc	24900
atgagtgagc	tgatcgtgcg	ccgtgcgcag	cccctggaga	gggatgcaaa	tttgcaagaa	24960

caaacagagg	agggcctacc	cgcagttggc	gacgagcagc	tagcgcgctg	gcttcaaacg	25020
cgcgagcctg	ccgacttgga	ggagcgacgc	aaactaatga	tggccgcagt	gctcgttacc	25080
gtggagcttg	agtgcacgca	gcggttcttt	gctgaccccg	agatgcagcg	caagctagag	25140
gaaacattgc	actacacctt	tcgacagggc	tacgtacgcc	aggcctgcaa	gatctccaac	25200
gtggagctct	gcaacctggt	ctcctacctt	ggaattttgc	acgaaaaccg	ccttgggcaa	25260
aacgtgcttc	attccacgct	caagggcgag	gcgcgcgcgc	actacgtccg	cgactgcggt	25320
tacttatttc	tatgctacac	ctggcagacg	gccatgggcg	tttggcagca	gtgcttggag	25380
gagtgc aacc	tcaaggagct	gcagaaactg	ctaaagcaaa	acttgaagga	cctatggacg	25440
gccttcaacg	agcgcctcgt	ggccgcgcac	ctggcggaca	tcattttccc	cgaacgcctg	25500
cttaaaaccc	tgcaacaggg	tctgccagac	ttcaccagtc	aaagcatggt	gcagaacttt	25560
aggaacttta	tcctagagcg	ctcaggaatc	ttgcccgcca	cctgctgtgc	acttcctagc	25620
gactttgtgc	ccattaagta	ccgcgaatgc	cctccgcgcg	tttggggcca	ctgctacctt	25680
ctgcagctag	ccaactacct	tgcctaccac	tctgacataa	tggaagacgt	gagcggtgac	25740
gggtctactg	agtgtcactg	tcgctgcaac	ctatgcaccc	cgcaccgctc	cctggtttgc	25800
aattcgcagc	tgcttaacga	aagtcaaatt	atcggctacct	ttgagctgca	gggtccctcg	25860
cctgacgaaa	agtccgcggc	tccgggggtg	aaactcactc	cggggctgtg	gacgtcggct	25920
taccttcgca	aatttgtacc	tgaggactac	cacgcccacg	agattaggtt	ctacgaagac	25980
caatccccgc	cgccaaatgc	ggagcttacc	gcctgcgtca	ttaccagagg	ccacattctt	26040
ggccaattgc	aagccatcaa	caaagccgcg	caagagtttc	tgctacgaaa	gggacggggg	26100
gtttacttgg	acccccagtc	cggcgaggag	ctcaacccaa	tccccccgcg	gccgcagccc	26160
tatcagcagc	agccgcgggc	ccttgcttcc	caggatggca	cccaaaaaga	agctgcagct	26220
gccgccgcca	cccacggacg	aggaggaata	ctgggacagt	caggcagagg	aggttttgga	26280
cgaggaggag	gaggacatga	tggaagactg	ggagagccta	gacgaggaag	cttccgaggt	26340
cgaagagggtg	tcagacgaaa	caccgtcacc	ctcggtcgca	ttcccctcgc	cggcgcccca	26400
gaaatcggca	accggttcca	gcatggctac	aacctccgct	cctcaggcgc	cgccggcact	26460
gcccgttcgc	cgacccaacc	gtagatggga	caccactgga	accagggccg	gtaagtccaa	26520
gcagccgcgc	ccgttagccc	aagagcaaca	acagcgccaa	ggctaccgct	catggcgcg	26580
gcacaagaac	gccatagtgt	cttgcttgca	agactgtggg	ggcaacatct	ccttcgcccc	26640
ccgctttctt	ctctaccatc	acggcggtgg	cttccccctg	aacatcctgc	attactaccg	26700
tcctctctac	agcccatact	gcaccggcgg	cagcggcagc	ggcagcaaca	gcagcggcca	26760

cacagaagca	aaggcgaccg	gatagcaaga	ctctgacaaa	gccaagaaa	tccacagcgg	26820
cggcagcagc	aggaggagga	gcgctgcgtc	tggcgcccaa	cgaaccgta	tcgaccgcg	26880
agcttagaaa	caggattttt	cccactctgt	atgctatatt	tcaacagagc	aggggccaag	26940
aacaagagct	gaaaataaaa	aacagggtctc	tgcgatccct	caccgcgagc	tgctgtatc	27000
acaaaagcga	agatcagctt	cggcgcacgc	tggaagacgc	ggaggctctc	ttcagtaa	27060
actgcgcgct	gactcttaag	gactagtttc	gcgccctt	tcaaatttaa	gcgcgaaa	27120
tacgtcatct	ccagcggcca	caccggcg	cagcacctgt	cgtcagcgcc	attatgagca	27180
aggaaattcc	cacgccctac	atgtggagtt	accagccaca	aatgggactt	gcggctggag	27240
ctgccaaga	ctactcaacc	cgaataaa	acatgagcgc	gggacccac	atgatatccc	27300
gggtcaacgg	aatccgcgcc	caccgaaacc	gaattctctt	ggaacaggcg	gctattacca	27360
ccacacctcg	taataacctt	aatccccgta	gttggccgc	tgccctggtg	taccaggaaa	27420
gtcccgctcc	caccactgtg	gtacttccca	gagacgcca	ggccgaagtt	cagatgacta	27480
actcaggggc	gcagcttg	ggcggctt	gtcacagggt	gcggtcgccc	gggcagggt	27540
taactcacct	gacaatcaga	ggcgaggta	ttcagctcaa	cgacgagtcg	gtgagctcct	27600
cgcttggct	ccgtccggac	gggacatttc	agatcggcg	cgccggccgt	ccttcattca	27660
cgccctcgta	ggcaatccta	actctgcaga	cctcgctctc	tgagccgcgc	tctggaggca	27720
ttggaactct	gcaatttatt	gaggagtttg	tgccatcggt	ctactttaac	cccttctcgg	27780
gacctcccg	ccactatccg	gatcaattta	ttcctaactt	tgacgcggta	aaggactcgg	27840
cggacggcta	cgactgaatg	ttaagtggag	aggcagagca	actgcgcctg	aaacacctgg	27900
tccactgtcg	ccgccacaag	tgctttgccc	gcgactccgg	tgagttttgc	tactttgaat	27960
tgcccgagga	tcatatcgag	ggccggcg	acggcgccg	gcttaccgcc	caggagagc	28020
ttgcccgtag	cctgattcgg	gagtttacc	agcgccccc	gctagttgag	cgggacaggg	28080
gacctgtgt	tctcactgtg	atttgcaact	gtcctaacct	tggattacat	caagatcttt	28140
gttgccatct	ctgtgctgag	tataataaat	acagaaatta	aaatatactg	gggtcctat	28200
cgccatcctg	taaacgccac	cgtcttcacc	cggccaagca	aaccaaggcg	aaccttacct	28260
ggtactttta	acatctctcc	ctctgtgatt	tacaacagtt	tcaaccaga	cggagtgagt	28320
ctacgagaga	acctctccga	gctcagctac	tccatcagaa	aaaacaccac	cctccttacc	28380
tgccgggaac	gtacgagtgc	gtcaccggcc	gctgcaccac	acctaccgcc	tgaccgtaaa	28440
ccagactttt	tccggacaga	cctcaataac	tctgtttacc	agaacaggag	gtgagcttag	28500
aaaaccctta	gggtattagg	ccaaaggcgc	agctactgtg	gggtttatga	acaattcaag	28560

caactctacg	ggctattcta	attcagggtt	ctctagaatc	ggggttgggg	ttattctctg	28620
tcttgtgatt	ctctttattc	ttatactaac	gcttctctgc	ctaaggctcg	ccgcctgctg	28680
tgtgcacatt	tgcatTTatt	gtcagctttt	taaacgctgg	ggtcgccacc	caagatgatt	28740
aggtacataa	tcctagggtt	actcaccctt	gcgtcagccc	acggtaccac	ccaaaagggtg	28800
gattttaagg	agccagcctg	taatgttaca	ttcgcagctg	aagctaataa	gtgcaccact	28860
cttataaaat	gcaccacaga	acatgaaaag	ctgcttattc	gccacaaaaa	caaaattggc	28920
aagtatgctg	tttatgctat	ttggcagcca	ggtgacacta	cagagtataa	tgttacagtt	28980
ttccagggtg	aaagtcataa	aactttttatg	tatacttttc	catttttatga	aatgtgcgac	29040
attaccatgt	acatgagcaa	acagtataag	ttgtggcccc	cacaaaattg	tgtggaaaac	29100
actggcactt	tctgctgcac	tgctatgcta	attacagtgc	tcgctttggg	ctgtacccta	29160
ctctatatta	aatacaaaaag	cagacgcagc	tttattgagg	aaaagaaaat	gccttaattt	29220
actaagtTac	aaagctaata	tcaccactaa	ctgctttact	cgctgcttgc	aaaacaaatt	29280
caaaaagtta	gcattataat	tagaatagga	tttaaaccoc	ccggtcattt	cctgctcaat	29340
accattcccc	tgaacaattg	actctatgtg	ggatatgctc	cagcgctaca	accttgaagt	29400
caggcttcct	ggatgtcagc	atctgacttt	ggccagcacc	tgtcccgcg	atttgttcca	29460
gtccaactac	agcgaccac	cctaacagag	atgaccaaca	caaccaacgc	ggccgccgct	29520
accggactta	catctaccac	aaatacacc	caagtttctg	cctttgtcaa	taactgggat	29580
aacttgggca	tgtggtggtt	ctccatagcg	cttatgtttg	tatgccttat	tattatgtgg	29640
ctcatctgct	gcctaaagcg	caaacgcgcc	cgaccaccca	tctatagtcc	catcattgtg	29700
ctacacccaa	acaatgatgg	aatccataga	ttggacggac	tgaacacat	gttcttttct	29760
cttacagtat	gattaaatga	gacatgattc	ctcgagtttt	tatattactg	accttggtg	29820
cgcttttttg	tgctgctcc	acattggctg	cggtttctca	catcgaagta	gactgcattc	29880
cagccttcac	agtctatttg	ctttacggat	ttgtcaccct	cacgctcatc	tgcagcctca	29940
tcactgtggt	catcgctttt	atccagtgca	ttgactgggt	ctgtgtgcgc	tttgcatatc	30000
tcagacacca	tccccagtac	agggacagga	ctatagctga	gcttcttaga	attctttaat	30060
tatgaaattt	actgtgactt	ttctgctgat	tatttgcacc	ctatctgcgt	tttgttcccc	30120
gacctccaag	cctcaaagac	atatatcatg	cagattcact	cgtatatgga	atattccaag	30180
ttgctacaat	gaaaaaagcg	atctttccga	agcctgggtta	tatgcaatca	tctctgttat	30240
ggtgttctgc	agtaccatct	tagccctagc	tatatatccc	taccttgaca	ttggctggaa	30300
acgaatagat	gccatgaacc	acccaacttt	ccccgcgcc	gctatgcttc	cactgcaaca	30360

agttgttgcc	ggcggctttg	tcccagccaa	tcagcctcgc	cccacttctc	ccacccccac	30420
tgaaatcagc	tactttaatc	taacaggagg	agatgactga	caccctagat	ctagaaatgg	30480
acggaattat	tacagagcag	cgcctgctag	aaagacgcag	ggcagcggcc	gagcaacagc	30540
gcatgaatca	agagctccaa	gacatggtta	acttgaccca	gtgcaaaaagg	ggtatctttt	30600
gtctggtaaa	gcaggccaaa	gtcacctacg	acagtaatac	caccggacac	cgccttagct	30660
acaagttgcc	aaccaagcgt	cagaaattgg	tggtcatggt	gggagaaaag	cccattacca	30720
taactcagca	ctcggtagaa	accgaaggct	gcattcactc	accttgtcaa	ggacctgagg	30780
atctctgcac	ccttattaag	accctgtgcg	gtctcaaaga	tcttattccc	tttaactaat	30840
aaaaaaaaat	aataaagcat	cacttactta	aaatcagtta	gcaaatttct	gtccagttta	30900
ttcagcagca	cctccttgcc	ctcctcccag	ctctgggtatt	gcagcttcct	cctggctgca	30960
aactttctcc	acaatctaaa	tggaatgtca	gtttcctcct	gttcctgtcc	atccgcaccc	31020
actatcttca	tgttgttgca	gatgaagcgc	gcaagaccgt	ctgaagatac	cttcaacccc	31080
gtgtatccat	atgacacgga	aaccggtcct	ccaactgtgc	cttttcttac	tcctcccttt	31140
gtatccccca	atgggtttca	agagagtccc	cctgggggtac	tctctttgcg	cctatccgaa	31200
cctctagtta	cctccaatgg	catgcttgcg	ctcaaaatgg	gcaacggcct	ctctctggac	31260
gaggccggca	accttacctc	ccaaaatgta	accactgtga	gcccacctct	caaaaaaacc	31320
aagtcaaaca	taaacctgga	aatatctgca	cccctcacag	ttacctcaga	agccctaact	31380
gtggctgccg	ccgcacctct	aatggtcgcg	ggcaacacac	tcaccatgca	atcacaggcc	31440
ccgctaaccg	tgcacgactc	caaacttagc	attgccaccc	aaggacccct	cacagtgtca	31500
gaaggaaagc	tagccctgca	aacatcaggc	cccctacca	ccaccgatag	cagtaccctt	31560
actatcactg	cctcaccccc	tctaactact	gccactggta	gcttgggcat	tgacttgaaa	31620
gagcccattt	atacacaaaa	tggaaaacta	ggactaaagt	acggggctcc	tttgcattga	31680
acagacgacc	taaacacttt	gaccgtagca	actggtccag	gtgtgactat	taataatact	31740
tccttgcaaa	ctaaagttac	tggagccttg	ggttttgatt	cacaaggcaa	tatgcaactt	31800
aatgtagcag	gaggactaag	gattgattct	caaaacagac	gccttatact	tgatgttagt	31860
tatccgtttg	atgctcaaaa	ccaactaaat	ctaagactag	gacagggccc	tctttttata	31920
aactcagccc	acaacttgga	tattaactac	aacaaaggcc	tttacttggt	tacagcttca	31980
aacaattcca	aaaagcttga	ggttaaccta	agcactgcc	aggggttgat	gtttgacgct	32040
acagccatag	ccattaatgc	aggagatggg	cttgaatttg	gttcacctaa	tgcaccaaac	32100
acaaatcccc	tcaaaacaaa	aattggccat	ggcctagaat	ttgattcaaa	caaggctatg	32160

gttcctaaac	taggaactgg	ccttagtttt	gacagcacag	gtgccattac	agtaggaaac	32220
aaaaataatg	ataagctaac	tttgtggacc	acaccagctc	catctcctaa	ctgtagacta	32280
aatgcagaga	aagatgctaa	actcactttg	gtcttaacaa	aatgtggcag	tcaaatactt	32340
gctacagttt	cagttttggc	tgttaaaggc	agtttggctc	caatatctgg	aacagttcaa	32400
agtgtcatc	ttattataag	at ttgacgaa	aatggagtgc	tactaaacaa	ttccttcctg	32460
gaccagaat	attggaactt	tagaaatgga	gatcttactg	aaggcacagc	ctatacaaac	32520
gctgttggat	ttatgcctaa	cctatcagct	tatccaaaat	ctcacggtaa	aactgccaaa	32580
agtaacattg	tcagtcaagt	ttacttaaac	ggagacaaaa	ctaaacctgt	aactactaac	32640
attacactaa	acggtacaca	ggaaacagga	gacacaactc	caagtgcata	ctctatgtca	32700
ttttcatggg	actggtctgg	ccacaactac	attaatgaaa	tatttgccac	atcctcttac	32760
actttttcat	acattgccca	agaataaaga	atcgtttgtg	ttatgtttca	acgtgtttat	32820
ttttcaattg	cagaaaattt	caagtcat tt	ttcattcagt	agtatagccc	caccaccaca	32880
tagcttatac	agatcacctg	accttaatca	aactcacaga	accctagtat	tcaacctgcc	32940
acctccctcc	caacacacag	agtacacagt	cctttctccc	cggctggcct	taaaaagcat	33000
catatcatgg	gtaacagaca	tattcttagg	tgttatattc	cacacggttt	cctgtcgagc	33060
caaacgctca	tcagtgat at	taataaactc	cccgggcagc	tactttaagt	tcatgtcgct	33120
gtccagctgc	tgagccacag	gctgctgtcc	aacttgcggt	tgcttaacgg	gcggcgaagg	33180
agaagtccac	gcctacatgg	gggtagagtc	ataatcgtgc	atcaggatag	ggcgggtggtg	33240
ctgcagcagc	gcgcgaataa	actgctgccg	ccgccgctcc	gtcctgcagg	aatacaacat	33300
ggcagtggtc	tcctcagcga	tgattcgcac	cgcccgagc	ataaggcgcc	ttgtcctccg	33360
ggcacagcag	cgcaccctga	tctcacttaa	atcagcacag	taactgcagc	acagcaccac	33420
aatattgttc	aaaatcccac	agtgcaaggc	gctgtatcca	aagctcatgg	cgggggaccac	33480
agaaccacag	tggccatcat	accacaagcg	caggtagatt	aagtggcgac	ccctcataaa	33540
cacgctggac	ataaacatta	cctcttttgg	catgttgtaa	ttcaccacct	cccggtagca	33600
tataaacctc	tgattaaaca	tggcgccatc	caccaccatc	ctaaaccagc	tggccaaaaac	33660
ctgcccgccg	gctatacact	gcagggaacc	gggactggaa	caatgacagt	ggagagccca	33720
ggactcgtaa	ccatggatca	tcatgctcgt	catgatatca	atgttggcac	aacacaggca	33780
cacgtgcata	cacttctca	ggattacaag	ctcctcccgc	gttagaacca	tatcccaggg	33840
aacaacccat	tcctgaatca	gcgtaaatcc	cacactgcag	ggaagacctc	gcacgtaact	33900
cacgttgtgc	attgtcaaag	tgttacattc	gggcagcagc	ggatgatcct	ccagtatggt	33960

agcgcggggtt tctgtctcaa aaggaggtag acgatcccta ctgtacggag tgcgccgaga 34020
 caaccgagat cgtgttggtc gtagtgtcat gccaaatgga acgccggacg tagtcatatt 34080
 tcttgaagca aaaccaggtg cgggcgtgac aaacagatct gcgtctccgg tctcgccgct 34140
 tagatcgctc tgtgtagtag ttgtagtata tccactctct caaagcatcc aggcgcccc 34200
 tggcttcggg ttctatgtaa actccttcat gcgcgctgc cctgataaca tccaccaccg 34260
 cagaataagc cacaccacgc caacctacac attcgttctg cgagtcacac acgggaggag 34320
 cgggaagagc tggaagaacc atgttttttt ttttattcca aaagattatc caaaacctca 34380
 aaatgaagat ctattaagtg aacgcgctcc cctccggtgg cgtgggtcaaa ctctacagcc 34440
 aaagaacaga taatggcatt tgtaagatgt tgcacaatgg cttccaaaag gcaaacggcc 34500
 ctcacgtcca agtggacgta aaggctaaac cttcagggg gaatctctc tataaacatt 34560
 ccagcacctt caaccatgcc caaataattc tcatctcgcc accttctcaa tatatctcta 34620
 agcaaatccc gaatattaag tccggccatt gtaaaaatct gctccagagc gccctccacc 34680
 ttcagcctca agcagcgaat catgattgca aaaattcagg ttcctcacag acctgtataa 34740
 gattcaaaag cggaacatta acaaaaatac cgcgatccc taggtccctt cgcagggccca 34800
 gctgaacata atcgtgcagg tctgcacgga ccagcgcggc cacttccccg ccaggaacct 34860
 tgacaaaaga acccactg attatgacac gcatactcg agctatgcta accagcgtag 34920
 ccccgatgta agctttgttg catgggcggc gatataaaat gcaagggtgct gctcaaaaaa 34980
 tcaggcaaag cctcgcgcaa aaaagaaagc acatcgtagt catgctcatg cagataaagg 35040
 caggtaagct ccggaaccac cacagaaaaa gacaccattt ttctctcaa catgtctgcg 35100
 ggtttctgca taaacacaaa ataaaataac aaaaaaacat taaacatta gaagcctgtc 35160
 ttacaacagg aaaaacaacc cttataagca taagacggac tacggccatg ccggcgtagc 35220
 cgtaaaaaaa ctggtcaccg tgattaaaaa gcaccaccga cagctcctcg gtcatgtccg 35280
 gagtcataat gtaagactcg gtaaacacat cagggttgatt catcggtcag tgctaaaaag 35340
 cgaccgaaat agcccggggg aatacatacc cgcaggcgta gagacaacat tacagcccc 35400
 ataggaggta taacaaaatt aataggagag aaaaacacat aaacacctga aaaacctcc 35460
 tgcctaggca aaatagcacc ctcccgctcc agaacaacat acagcgcttc acagcggcag 35520
 cctaacagtc agccttacca gtaaaaaaga aaacctatta aaaaaacacc actcgacacg 35580
 gcaccagctc aatcagtcac agtgtaaaaa agggccaagt gcagagcgag tatatatagg 35640
 actaaaaaat gacgtaacgg ttaaagtcca caaaaaacac ccagaaaacc gcacgcgaac 35700
 ctacgccag aaacgaaagc caaaaaaccc acaacttcct caaatcgta cttccgtttt 35760

cccacgttac gtaacttccc attttaagaa aactacaatt cccaacacat acaagttact 35820
 ccgccctaaa acctacgtca cccgccccgt tcccacgccc cgcgccacgt cacaaactcc 35880
 accccctcat tatcatattg gcttcaatcc aaaataaggt atattattga tgatg 35935

<210> 5

<211> 35935

<212> DNA

<213> Human adenovirus type 5

<400> 5

catcatcaat aatatacctt attttggatt gaagccaata tgataatgag ggggtggagt 60
 ttgtgacgtg gcgcggggcg tgggaacggg gcgggtgacg tagtagtgtg gcggaagtgt 120
 gatgttgcaa gtgtggcgga acacatgtaa gcgacggatg tggcaaaagt gacgtttttg 180
 gtgtgcgcgg gtgtacacag gaagtgacaa ttttcgcgcg gttttaggcg gatgttgtag 240
 taaatttggg cgtaaccgag taagatttgg ccattttcgc gggaaaactg aataagagga 300
 agtgaaatct gaataatttt gtgttactca tagcgcgtaa tatttgtcta gggccgcggg 360
 gactttgacc gtttacgtgg agactcgcgc aggtgttttt ctcaggtgtt ttccgcgttc 420
 cgggtcaaag ttggcgtttt attattatag tcagctgacg tgtagtgtat ttatacccg 480
 tgagttcttc aagaggccac tcttgagtgc cagcgagtag agttttctcc tccgagccgc 540
 tccgacaccg ggactgaaaa tgagacatat tatctgccac ggaggtgtta ttaccgaaga 600
 aatggccgcc agtcttttgg accagctgat cgaagaggta ctggctgata atcttccacc 660
 tcctagccat tttgaaccac ctacccttca cgaactgtat gatttagacg tgacggcccc 720
 cgaagatccc aacgaggagg cggtttcgca gatttttccc gactctgtaa tgttggcggt 780
 gcaggaaggg attgacttac tcacttttcc gccggcgccc ggttctccgg agccgcctca 840
 cctttcccg cagcccagac agccggagca gagagccttg ggtccggttt ctatgccaaa 900
 ccttgtaccg gaggtgatcg atcttacctg ccacgaggct ggctttccac ccagtgacga 960
 cgaggatgaa gagggtgagg agtttgtgtt agattatgtg gagcaccctg ggcacgggtg 1020
 caggtcttgt cattatcacc ggaggaatac gggggaccca gatattatgt gttcgctttg 1080
 ctatatgagg acctgtggca tgtttgtcta cagtaagtga aaattatggg cagtgggtga 1140
 tagagtgggt ggtttgggtg ggtaattttt tttttaattt ttacagtttt gtggttttaa 1200
 gaattttgta ttgtgatttt tttaaaaggt cctgtgtctg aacctgagcc tgagcccag 1260
 ccagaaccgg agcctgcaag acctaccgc cgtcctaataa tggcgcctgc tatcctgaga 1320
 cgcccgacat cacctgtgtc tagagaatgc aatagtagta cggatagctg tgactccggt 1380

ccttctaaca	cacctcctga	gatacacccg	gtgggtcccgc	tgtgccccat	taaaccagtt	1440
gccgtgagag	ttgggtgggcg	tcgccaggct	gtggaatgta	tcgaggactt	gcttaacgag	1500
cctgggcaac	ctttggactt	gagctgtaaa	cgccccaggc	cataaggtgt	aaacctgtga	1560
ttgcgtgtgt	ggttaacgcc	tttgtttgct	gaatgagttg	atgtaagttt	aataaagggt	1620
gagataatgt	ttaacttgca	tggcgtgtta	aatggggcgg	ggcttaaagg	gtatataatg	1680
cgccgtgggc	taatcttggt	tacatctgac	ctcatggagg	cttgggagtg	tttggaagat	1740
ttttctgctg	tgcgtaactt	gctggaacag	agctctaaca	gtacctcttg	gttttgaggg	1800
tttctgtggg	gctcatccca	ggcaaagtta	gtctgcagaa	ttaaggagga	ttacaagtgg	1860
gaatttgaag	agcttttgaa	atcctgtggt	gagctgtttg	attctttgaa	tctgggtcac	1920
caggcgcttt	tccaagagaa	ggcatcaag	actttggatt	ttccacacc	ggggcgcgct	1980
gcggtgctg	ttgctttttt	gagttttata	aaggataaat	ggagcgaaga	aacctatctg	2040
agcggggggt	acctgctgga	ttttctggcc	atgcatctgt	ggagagcggt	tgtgagacac	2100
aagaatcgcc	tgctactggt	gtcttcctgc	cgcccgccga	taataccgac	ggaggagcag	2160
cagcagcagc	aggaggaagc	caggcggcgg	cggcaggagc	agagcccatg	gaacccgaga	2220
gccggcctgg	accctcgga	atgaatgttg	tacaggtggc	tgaactgtat	ccagaactga	2280
gacgcatttt	gacaattaca	gaggatgggc	aggggctaaa	gggggtaaag	aggagcggg	2340
gggcttgatg	ggctacagag	gaggctagga	atctagcttt	tagcttaatg	accagacacc	2400
gtcctgagtg	tattactttt	caacagatca	aggataattg	cgctaatgag	cttgatctgc	2460
tggcgagaa	gtattccata	gagcagctga	ccacttactg	gctgcagcca	ggggatgatt	2520
ttgaggaggc	tattagggtta	tatgcaaagg	tggcacttag	gccagattgc	aagtacaaga	2580
tcagcaaact	tgtaaataatc	aggaattgtt	gctacatttc	tgggaacggg	gccgaggtgg	2640
agatagatac	ggaggatagg	gtggccttta	gatgtagcat	gataaatatg	tggccggggg	2700
tgcttggcat	ggacgggggtg	gttattatga	atgtaagggt	tactggcccc	aatttttagcg	2760
gtacggtttt	cctggccaat	accaacctta	tcctacacgg	tgtaagcttc	tatgggttta	2820
acaataacctg	tgtggaagcc	tggaccgatg	taagggttcg	gggctgtgcc	ttttactgct	2880
gctggaagg	gggtgtgtgt	cgccccaaaa	gcagggttc	aattaagaaa	tgctcttttg	2940
aaagggtgtac	cttgggtatc	ctgtctgagg	gtaactccag	ggtgcgccac	aatgtggcct	3000
ccgactgtgg	ttgcttcatg	ctagtgaata	gcgtggctgt	gattaagcat	aacatgggat	3060
gtggcaactg	cgaggacagg	gcctctcaga	tgctgacctg	ctcggacggc	aactgtcacc	3120
tgctgaagac	cattcacgta	gccagccact	ctcgcaaggc	ctggccagtg	tttgagcata	3180

acatactgac	ccgctgttcc	ttgcatttgg	gtaacaggag	gggggtgttc	ctaccttacc	3240
aatgcaat	gagtcacact	aagatattgc	ttgagcccga	gagcatgtcc	aaggtgaacc	3300
tgaacgggg	gtttgacatg	accatgaaga	tctggaaggt	gctgaggtac	gatgagaccc	3360
gcaccagg	cagaccctgc	gagtgtggcg	gtaaacatat	taggaaccag	cctgtgatgc	3420
tggatgtgac	cgaggagctg	aggcccgatc	acttgggtgct	ggcctgcacc	cgcgctgagt	3480
ttggctctag	cgatgaagat	acagattgag	gtactgaaat	gtgtgggcgt	ggcttaaggg	3540
tgggaaagaa	tatataaggt	gggggtctta	tgtagttttg	tatctgtttt	gcagcagccg	3600
ccgccgccat	gagcaccaac	tcgtttgatg	gaagcattgt	gagctcatat	ttgacaacgc	3660
gcatgcccc	atgggcccgg	gtgcgtcaga	atgtgatggg	ctccagcatt	gatggctgcc	3720
ccgtcctgcc	cgaaaactct	actaccttga	cctacgagac	cgtgtctgga	acgccgttgg	3780
agactgcagc	ctccgccgcc	gcttcagccg	ctgcagccac	cgcccgccgg	attgtgactg	3840
actttgcttt	cctgagcccc	cttgcaagca	gtgcagcttc	ccgttcatcc	gcccgcgatg	3900
acaagttgac	ggctcttttg	gcacaattgg	attctttgac	ccgggaactt	aatgtcgttt	3960
ctcagcagct	gttgatctg	cgccagcagg	tttctgccct	gaaggcttcc	tcccctccca	4020
atgcggttta	aaacataaat	aaaaaaccag	actctgtttg	gatttggatc	aagcaagtgt	4080
cttgctgtct	ttatttaggg	gttttgccg	cgcggtaggc	ccgggaccag	cggctctcgg	4140
cgttgagggt	cctgtgtatt	ttttccagga	cgtggtaaag	gtgactctgg	atgttcagat	4200
acatgggcat	aagcccgtct	ctggggtgga	ggtagcacca	ctgcagagct	tcattgctgcg	4260
gggtggtggt	gtagatgatc	cagtcgtagc	aggagcgctg	ggcgtggtgc	ctaaaaatgt	4320
ctttcagtag	caagctgatt	gccaggggca	ggcccttgg	gtaagtgttt	acaaagcgg	4380
taagctggga	tgggtgcata	cgtggggata	tgagatgcat	cttggaactgt	atttttaggt	4440
tggctatggt	cccagccata	tccctccggg	gattcatggt	gtgcagaacc	accagcacag	4500
tgtatccgg	gcacttgga	aatttgtcat	gtagcttaga	aggaaatgcg	tggagaact	4560
tggagacgcc	cttgtgacct	ccaagat	ccatgcattc	gtccataatg	atggcaatgg	4620
gcccacgggc	ggcggcctgg	gcgaagatat	ttctgggatc	actaacgtca	tagttgtgtt	4680
ccaggatgag	atcgtcatag	gccattttta	caaagcgccg	gcggaggggtg	ccagactgcg	4740
gtataatggt	tccatccggc	ccaggggcgt	agttaccctc	acagatttgc	atttcccacg	4800
ctttgagttc	agatgggggg	atcatgtcta	cctgcggggc	gatgaagaaa	acggtttccg	4860
gggtagggga	gatcagctgg	gaagaaagca	ggttcctgag	cagctgcgac	ttaccgcagc	4920
cgggtgggcc	gtaaatcaca	cctattaccg	ggtgcaactg	gtagttaaga	gagctgcagc	4980

tgccgtcatc	cctgagcagg	ggggccactt	cgtaaagcat	gtccctgact	cgcatgtttt	5040
ccctgaccaa	atccgccaga	aggcgctcgc	cgcccagcga	tagcagttct	tgcaaggaag	5100
caaagttttt	caacggtttg	agaccgtccg	ccgtaggcac	gcttttgagc	gtttgaccaa	5160
gcagttccag	gcgggtccac	agctcgggtca	cctgctctac	ggcatctcga	tccagcatat	5220
ctcctcgttt	cgcggtttgg	ggcggttttc	gctgtacggc	agtagtcggg	gctcgtccag	5280
acggggcagg	gtcatgtctt	tccacggggc	cagggtcctc	gtcagcgtag	tctgggtcac	5340
ggtgaagggg	tgcgctccgg	gctgcgcgct	ggccagggtg	cgcttgaggc	tggctcctgct	5400
ggtgctgaag	cgctgccggt	cttcgccctg	cgcgctggcc	aggtagcatt	tgaccatggt	5460
gtcatagtcc	agccccctcc	cgcggtggcc	cttggcgcg	agcttgccct	tggaggaggc	5520
gccgcacgag	gggcagtgca	gacttttgag	ggcgtagagc	ttggggcgca	gaaataccga	5580
ttccggggag	taggcacccg	cgccgcaggc	cccgcagacg	gtctcgcatt	ccacgagcca	5640
ggtgagctct	ggccgttcgg	ggtcaaaaac	caggtttccc	ccatgctttt	tgatgcgttt	5700
cttacctctg	gtttccatga	gccggtgtcc	acgctcgggtg	acgaaaaggc	tgtccgtgtc	5760
cccgtataca	gacttgagag	gcctgtcctc	gagcggtgtt	ccgcgggtcct	cctcgtatag	5820
aaactcggac	cactctgaga	caaaggctcg	cgtccaggcc	agcacgaagg	aggctaagtg	5880
ggaggggtag	cggtcgttgt	ccactagggg	gtccactcgc	tccagggtgt	gaagacacat	5940
gtcgccctct	tcggcatcaa	ggaaggtgat	tggtttgtag	gtgtaggcca	cgtgaccggg	6000
tgttcctgaa	ggggggctat	aaaagggggg	gggggcgcgt	tcgtcctcac	tctcttcgcg	6060
atcgctgtct	gcgagggcca	gctgttgggg	tgagtactcc	ctctgaaaag	cgggcatgac	6120
ttctgcgcta	agattgtcag	tttccaaaaa	cgaggaggat	ttgatattca	cctggcccgc	6180
ggtgatgcct	ttgaggggtg	ccgcacccat	ctggtcagaa	aagacaatct	ttttgttgtc	6240
aagcttggtg	gcaaacgacc	cgtagagggc	gttggtacagc	aacttggcga	tggagcgcag	6300
ggtttggttt	ttgtcgcgat	cggcgcgctc	cttgcccgcg	atgttttagct	gcacgtattc	6360
gcgcgcaacg	caccgccatt	cggaagagac	ggtggtgcgc	tcgtcgggca	ccaggtgcac	6420
gcgccaaccg	cggttggtga	gggtgacaag	gtcaacgctg	gtggctacct	ctccgcgtag	6480
gcgctcggtg	gtccagcaga	ggcgcccgcc	cttgccgcgag	cagaatggcg	gtaggggggtc	6540
tagctgcgtc	tcgtccgggg	ggtctgcgtc	cacggtaaaag	accccgggca	gcaggcgcgc	6600
gtcgaagtag	tctatcttgc	atccttgcaa	gtctagcgcc	tgctgccatg	cgcgggcggc	6660
aagcgcgcg	tcgtatgggt	tgagtggggg	accccatggc	atgggggtggg	tgagcgcgga	6720
ggcgtagatg	ccgcaaatgt	cgtaaacgta	gaggggctct	ctgagtattc	caagatatgt	6780

agggtagcat	cttccaccgc	ggatgctggc	gcgcacgtaa	tcgtatagtt	cgtgcgaggg	6840
agcgaggagg	tcgggaccga	ggttgctacg	ggcgggctgc	tctgctcgga	agactatctg	6900
cctgaagatg	gcatgtgagt	tggatgatat	ggttggacgc	tggaagacgt	tgaagctggc	6960
gtctgtgaga	cctaccgcgt	cacgcacgaa	ggaggcgtag	gagtcgcgca	gcttggtgac	7020
cagctcggcg	gtgacctgca	cgtctagggc	gcagtagtcc	agggtttcct	tgatgatgtc	7080
atacttatcc	tgtccctttt	ttttccacag	ctcgcgggtg	aggacaaaact	cttcgcggtc	7140
tttccagtac	tcttggaicg	gaaacccgtc	ggcctccgaa	cggtaagagc	ctagcatgta	7200
gaactgggtg	acggcctggt	aggcgcagca	tcccttttct	acgggtagcg	cgtatgcctg	7260
cgcggccttc	cggagcagag	tgtgggtgag	cgcaaagggtg	tccctgacca	tgactttgag	7320
gtactgggtat	ttgaagtcag	tgtcgtcgca	tccgcctgc	tcccagagca	aaaagtcctg	7380
gcgctttttg	gaacgcggat	ttggcagggc	gaagggtgaca	tcgttgaaga	gtatctttcc	7440
cgcgcgaggc	ataaagttgc	gtgtgatgcg	gaagggtccc	ggcacctcgg	aacggttggt	7500
aattacctgg	gcggcgagca	cgatctcgtc	aaagccgttg	atgttggtggc	ccacaatgta	7560
aagttccaag	aagcgcggga	tgcccttgat	ggaaggcaat	tttttaagtt	cctcgtaggt	7620
gagctcttca	ggggagctga	gcccgtgctc	tgaaagggcc	cagtctgcaa	gatgaggggt	7680
ggaagcgacg	aatgagctcc	acaggtcacg	ggccattagc	atttgacaggt	ggtcgcgaaa	7740
ggtcctaaac	tggcgaccta	tggccatttt	ttctgggggtg	atgcagtaga	aggtaagcgg	7800
gtcttgttcc	cagcgggtccc	atccaaggtt	cgcggttagg	tctcgcgcgg	cagtcactag	7860
aggctcatct	ccgccgaact	tcatgaccag	catgaagggc	acgagctgct	tcccaaaggc	7920
ccccatccaa	gtataggtct	ctacatcgta	ggtgacaaag	agacgctcgg	tgcgaggatg	7980
cgagccgatc	gggaagaact	ggatctcccg	ccaccaattg	gaggagtggc	tattgatgtg	8040
gtgaaagtag	aagtccctgc	gacgggccga	acactcgtgc	tggcttttgt	aaaaacgtgc	8100
gcagtactgg	cagcgggtgca	cgggctgtac	atcctgcacg	aggttgacct	gacgaccgcg	8160
cacaaggaag	cagagtggga	atttgagccc	ctcgcctggc	gggtttggct	ggtggtcttc	8220
tacttcggct	gcttgtcctt	gaccgtctgg	ctgctcgagg	ggagttacgg	tggatcggac	8280
caccacgccg	cgcgagccca	aagtccagat	gtccgcgcgc	ggcggtcgga	gcttgatgac	8340
aacatcgcgc	agatgggagc	tgtccatggt	ctggagctcc	cgcggcgtca	ggtcaggcgg	8400
gagctcctgc	aggtttacct	cgcatagacg	ggtcagggcg	cgggctagat	ccagggtgata	8460
cctaatttcc	aggggctggt	tgggtggcggc	gtcgatggct	tgcaagaggc	cgcacccccg	8520
cggcgcgact	acggtaccgc	gcggcgggcg	gtgggccgcg	ggggtgtcct	tggatgatgc	8580

atctaaaagc	ggtgacgcgg	gcgagcccc	ggaggtaggg	ggggctccgg	acccgccggg	8640
agagggggca	ggggcacgtc	ggcgccgcgc	gcgggcagga	gctggtgctg	cgcgcgtagg	8700
ttgctggcga	acgcgacgac	gcggcggttg	atctcctgaa	tctggcgctt	ctgctggaag	8760
acgacggggc	cggtgagctt	gagcctgaaa	gagagttcga	cagaatcaat	ttcgggtgtc	8820
ttgacggcgg	cctggcgcaa	aatctcctgc	acgtctcctg	agttgtcttg	ataggcgatc	8880
tcggccatga	actgctcgat	ctcttcctcc	tggagatctc	cgcgtccggc	tcgctccacg	8940
gtggcggcga	ggtcgttgga	aatgcggggc	atgagctgcg	agaaggcggt	gaggcctccc	9000
tcgttccaga	cgcggtgtga	gaccacgccc	ccttcggcat	cgcgggcgcg	catgaccacc	9060
tgcgcgagat	tgagctccac	gtgccggggc	aagacggcgt	agtttcgcag	gcgctgaaag	9120
aggtagttga	gggtggtggc	ggtgtgttct	gccacgaaga	agtacataac	ccagcgtcgc	9180
aacgtggatt	cgttgatatc	ccccaaaggc	tcaaggcgct	ccatggcctc	gtagaagtcc	9240
acggcgaaat	tgaaaaactg	ggagttgcgc	gccgacacgg	ttaactcctc	ctccagaaga	9300
cggatgagct	cggcgacagt	gtcgcgcacc	tcgcgctcaa	aggctacagg	ggcctcttct	9360
tcttcttcaa	tctcctcttc	cataaaggcc	tccccttctt	cttcttcttg	cggcggtggg	9420
ggagggggga	cacggcgggc	acgacggcgc	accgggaggg	ggtcgacaaa	gcgctcgatc	9480
atctccccgc	ggcgacggcg	catggtctcg	gtgacggcgc	ggccgttctc	gcggggggcg	9540
agttggaaga	cgcgcgccgt	catgtcccgg	ttatgggttg	gcgggggggt	gccatgcggc	9600
agggatacgg	cgctaacgat	gcctctcaac	aattgttgtg	taggtactcc	gccgccgagg	9660
gacctgagcg	agtccgcata	gaccggatcg	gaaaacctct	cgagaaaggc	gtctaaccag	9720
tcacagtcgc	aaggtaggct	gagcaccgtg	gcgggcggca	gcgggcggcg	gtcgggggtg	9780
tttctggcgg	aggtgctgct	gatgatgtaa	ttaaagtagg	cggctctgag	acggcgggatg	9840
gtcgacagaa	gcaccatgtc	cttgggtccg	gcctgctgaa	tgcgcaggcg	gtcgggccatg	9900
ccccaggctt	cgttttgaca	tcggcgagg	tctttgtagt	agtcttgcat	gagcctttct	9960
accggcactt	cttcttctcc	ttcctcttgt	cctgcatact	ttgcatactat	cgtgcggcg	10020
gcggcggagt	ttggccgtag	gtggcgccct	cttcctccca	tgcgtgtgac	cccgaagccc	10080
ctcatcggct	gaagcagggc	taggtcggcg	acaacgcgct	cggctaatat	ggcctgctgc	10140
acctgcgtga	gggtagactg	gaagtcatcc	atgtccacaa	agcggtggtg	tgcgcccgtg	10200
ttgatggtgt	aagtgcagtt	ggccataacg	gaccagttaa	cggctctggtg	acccggctgc	10260
gagagctcgg	tgtacctgag	acgcgagtaa	gccctcgagt	caaatacgta	gtcgttgcaa	10320
gtccgcacca	ggtactggta	tcccacaaaa	aagtgcggcg	gcggctggcg	gtagaggggc	10380

cagcgtaggg tggccggggc tccgggggcg agatcttcca acataaggcg atgatatccg 10440
tagatgtacc tggacatcca ggtgatgccg gcggcggtgg tggaggcgcg cgaaaagtcg 10500
cggacgcggt tccagatggt gcgcagcggc aaaaagtgc ccatggtcgg gacgctctgg 10560
ccggtcaggc gcgcgcaatc gttgacgctc tagaccgtgc aaaaggagag cctgtaagcg 10620
ggcactcttc cgtggtctgg tggataaatt cgcaagggtg tcatggcgga cgaccggggg 10680
tcgagccccg tatccggccg tccgcctga tccatgcggt taccgcccgc gtgtcgaacc 10740
caggtgtgcg acgtcagaca acgggggagc gctccttttg gcttccttcc aggcgcggcg 10800
gctgctgcgc tagctttttt ggccactggc cgcgcgcagc gtaagcggtt aggcgtgaaa 10860
gcgaaagcat taagtggctc gctccctgta gccggagggt tattttccaa ggggtgagtc 10920
gcgggacccc cggttcgagt ctccgaccgg ccggactgcg gcgaacgggg gtttgcctcc 10980
ccgtcatgca agaccccgc tgc aaattcc tccggaaaca gggacgagcc ccttttttgc 11040
ttttccaga tgcacccggt gctgcggcag atgcgcccc ctctcagca gcggcaagag 11100
caagagcagc ggacagatg cagggcacc tccctctctc ctaccgcgtc aggagggggc 11160
acatccgcgg ttgacgcggc agcagatggt gattacgaac ccccgcggcg ccgggcccgc 11220
cactacctgg acttgagga gggcgagggc ctggcgcggc taggagcgcc ctctcctgag 11280
cggtagccaa gggtagcgt gaagcgtgat acgcgtgagg cgtacgtgcc gcggcagaac 11340
ctgtttcgcg accgcgaggg agaggagccc gaggagatgc gggatcgaaa gttccacgca 11400
gggcgcgagc tgcggcatgg cctgaatcgc gagcggttgc tgcgcgagga ggactttgag 11460
cccgacgcgc gaaccgggat tagtcccgcg cgcgcacacg tggcgccgc cgacctggta 11520
accgcatacg agcagacggt gaaccaggag attaaccttc aaaaaagctt taacaaccac 11580
gtgcgtacgc ttgtggcgcg cgaggaggtg gctataggac tgatgcatct gtgggacttt 11640
gtaagcgcg tggagcaaaa ccaaatagc aagccgctca tggcgagct gttccttata 11700
gtgcagcaca gcagggacaa cgaggcattc agggatgcgc tgctaaacat agtagagccc 11760
gagggccgct ggctgctega ttgataaac atcctgcaga gcatagtggg gcaggagcgc 11820
agcttgagcc tggctgacaa ggtggccgcc atcaactatt ccatgcttag cctgggcaag 11880
ttttacgccc gcaagatata ccatacccct tacgttccca tagacaagga ggtaaagatc 11940
gaggggttct acatgcgcat ggcgctgaag gtgcttacct tgagcgacga cctgggcgtt 12000
tatcgcaacg agcgcaccca caaggccgtg agcgtgagcc ggcggcgcg gctcagcgac 12060
cgcgagctga tgcacagcct gcaaagggcc ctggctggca cgggcagcgg cgatagagag 12120
gccgagtcct actttgacgc gggcgctgac ctgcgctggg cccaagccg acgcgcctg 12180

gaggcagctg	gggccggacc	tgggctggcg	gtggcacccg	cgcgcgctgg	caacgtcggc	12240
ggcgtggagg	aatatgacga	ggacgatgag	tacgagccag	aggacggcga	gtactaagcg	12300
gtgatgtttc	tgatcagatg	atgcaagacg	caacggaccc	ggcggtgcg	gcgcgctgc	12360
agagccagcc	gtccggcctt	aactccacgg	acgaactggc	ccaggatcat	gaccgcatca	12420
tgtcgctgac	tgcgcgcaat	cctgacgcgt	tccggcagca	gccgcaggcc	aaccggctct	12480
ccgcaattct	ggaagcgggt	gtcccggcgc	gcgcaaacc	cacgcacgag	aaggtgctgg	12540
cgatcgtaaa	cgcgctggcc	gaaaacagg	ccatccggcc	cgacgaggcc	ggcctggctt	12600
acgacgcgct	gcttcagcgc	gtggctcggt	acaacagcgg	caacgtgcag	accaacctgg	12660
accggctggg	gggggatgtg	cgcgaggccg	tggcgagcgc	tgagcgcgcg	cagcagcagg	12720
gcaacctggg	ctccatgggt	gcactaaacg	ccttctctgag	tacacagccc	gccaacgtgc	12780
cgcggggaca	ggaggactac	accaactttg	tgagcgcaact	gcggctaata	gtgactgaga	12840
caccgcaaag	tgaggtgtac	cagtctgggc	cagactatct	tttccagacc	agtagacaag	12900
gcctgcagac	cgtaaacctg	agccaggctt	tcaaaaactt	gcaggggctg	tgggggggtg	12960
gggctccac	aggcgaccgc	gcgaccgtgt	ctagcttgct	gacgcccac	tgcgcctgt	13020
tgctgctgct	aatagcgccc	ttcacggaca	gtggcagcgt	gtcccgggac	acatacctag	13080
gtcacttgct	gacactgtac	cgcgaggcca	taggtcaggc	gcatgtggac	gagcatactt	13140
tccaggagat	tacaagtgtc	agccgcgcgc	tggggcagga	ggacacgggc	agcctggagg	13200
caaccctaaa	ctacctgctg	accaaccggc	ggcagaagat	cccctcggtg	cacagtttaa	13260
acagcgagga	ggagcgcat	ttgcgctacg	tgacgcagag	cgtgagcctt	aacctgatgc	13320
gcgacggggg	aacgcccagc	gtggcgctgg	acatgaccgc	gcgcaacatg	gaaccgggca	13380
tgtatgcctc	aaaccggccg	tttatcaacc	gcctaataga	ctacttgcat	cgcgcgccg	13440
ccgtgaaccc	cgagtatttc	accaatgcca	tcttgaaccc	gcactggcta	ccgccccctg	13500
gtttctacac	cgggggattc	gaggtgccc	agggtaacga	tggattcctc	tgggacgaca	13560
tagacgacag	cgtgttttcc	ccgcaaccgc	agaccctgct	agagttgcaa	cagcgcgagc	13620
aggcagaggc	ggcgctgcga	aaggaaagct	tccgcaggcc	aagcagcttg	tccgatctag	13680
gcgctgcggc	cccgcggtca	gatgctagta	gccatttcc	aagcttgata	gggtctctta	13740
ccagcactcg	caccaccgc	ccgcgcctgc	tggcgagga	ggagtaccta	aacaactcgc	13800
tgctgcagcc	gcagcgcgaa	aaaaacctgc	ctccggcatt	tccaacaac	gggatagaga	13860
gcctagtggg	caagatgagt	agatggaaga	cgtagcgca	ggagcacagg	gacgtgccag	13920
gcccgcgccc	gcccaccgt	cgtcaaaggc	acgaccgtca	gcggggctct	gtgtgggagg	13980

acgatgactc ggcagacgac agcagcgtcc tggattttggg agggagtggc aacccgtttg 14040
 cgcaccttcg cccaggtcg gggagaatgt tttaaaaaaa aaaaagcatg atgcaaaata 14100
 aaaaactcac caaggccatg gcaccgagcg ttggttttct tgtattcccc ttagtatgcg 14160
 gcgcgcggcg atgtatgagg aaggctcctcc tccctcctac gagagtgtgg tgagcgcggc 14220
 gccagtggcg gcggcgctgg gttctccctt cgatgctccc ctggacccgc cgtttgtgcc 14280
 tccgcggtac ctgcggccta ccgggggggag aaacagcatc cgttactctg agttggcacc 14340
 cctattcgac accacccgtg tgtacctggt ggacaacaag tcaacggatg tggcatccct 14400
 gaactaccag aacgaccaca gcaactttct gaccacggtc attcaaaaca atgactacag 14460
 cccgggggag gcaagcacac agaccatcaa tcttgacgac cggtcgcact ggggcggcga 14520
 cctgaaaacc atcctgcata ccaacatgcc aaatgtgaac gagttcatgt ttaccaataa 14580
 gtttaaggcg cgggtgatgg tgtcgcgctt gcctactaag gacaatcagg tggagctgaa 14640
 atacgagtgg gtggagtcca cgctgcccga gggcaactac tccgagacca tgaccataga 14700
 ccttatgaac aacgcgatcg tggagcacta cttgaaagtg ggcagacaga acggggttct 14760
 ggaaagcgac atcggggtaa agtttgacac ccgcaacttc agactggggt ttgaccccg 14820
 cactggtctt gtcatgcctg gggatatatac aaacgaagcc ttccatccag acatcatttt 14880
 gctgccagga tgcggggtgg acttcaccca cagccgcctg agcaacttgt tgggcatccg 14940
 caagcggcaa cccttcagg agggctttag gatcacctac gatgatctgg aggggtggtaa 15000
 cattcccgca ctgttgatg tggacgccta ccaggcgagc ttgaaagatg acaccgaaca 15060
 gggcgggggt ggcgcaggcg gcagcaacag cagtggcagc ggcgcggaag agaactccaa 15120
 cgcggcagcc gcggcaatgc agccggtgga ggacatgaac gatcatgcca ttcgcggcga 15180
 cacctttgcc acacgggctg aggagaagcg cgctgaggcc gaagcagcgg ccgaagctgc 15240
 cgccccgct gcgcaaccg aggtcgagaa gcctcagaag aaaccggtga tcaaaccct 15300
 gacagaggac agcaagaaac gcagttacaa cctaataagc aatgacagca ccttcaccca 15360
 gtaccgcagc tggtagcttg catacaacta cggcgaccct cagaccggaa tccgctcatg 15420
 gaccctgctt tgcactcctg acgtaacctg cggctcggag caggtctact ggtcgttgcc 15480
 agacatgatg caagaccccg tgaccttccg ctccacgcgc cagatcagca actttccggt 15540
 ggtgggcgcc gagctgttgc ccgtgcactc caagagcttc tacaacgacc aggccgtcta 15600
 ctcccaactc atccgccagt ttacctctct gaccacgtg ttcaatcgct tccccagaa 15660
 ccagattttg gcgcgcccgc cagccccac catcaccacc gtcagtgaag acgttcctgc 15720
 tctcacagat cacgggacgc taccgctgcg caacagcatc ggaggagtcc agcagtgac 15780

cattactgac gccagacgcc gcacctgccc ctacgtttac aaggccctgg gcatagtctc 15840
gccgcgcgtc ctatcgagcc gcactttttg agcaagcatg tccatcctta tatcgcccag 15900
caataacaca ggctggggcc tgcgcttccc aagcaagatg tttggcgggg ccaagaagcg 15960
ctccgaccaa caccagtgcc gcgtgcgcgg gcactaccgc gcgccctggg gcgcgcacaa 16020
acgcggccgc actgggcgca ccaccgtcga tgacgccatc gacgcggtgg tggaggaggc 16080
gcgcaactac acgcccacgc cgccaccagt gtccacagtg gacgcggcca ttcagaccgt 16140
ggcgcgcgga gcccggcgct atgctaaaat gaagagacgg cggaggcgcg tagcacgtcg 16200
ccaccgccgc cgaccgggca ctgccgccc acgcgcggcg gcggccctgc ttaaccgcgc 16260
acgtcgcacc ggccgacggg cgcccatgcg ggccgctcga aggctggccg cgggtattgt 16320
cactgtgccc cccaggtcca ggcgacgagc ggccgcgcga gcagccgcgg ccattagtgc 16380
tatgactcag ggtcgcaggg gcaacgtgta ttgggtgcgc gactcggtta gcggcctgcg 16440
cgtgcccgtg cgcaccgcc ccccgcgcaa ctagattgca agaaaaact acttagactc 16500
gtactgttgt atgtatccag cggcggcggc gcgcaacgaa gctatgtcca agcgcaaat 16560
caaagaagag atgtccagg tcacgcgcgc ggagatctat ggcccccgga agaaggaaga 16620
gcaggattac aagccccgaa agctaaagcg ggtcaaaaag aaaaagaaag atgatgatga 16680
tgaacttgac gacgaggtgg aactgctgca cgctaccgcg ccagggcgac ggggtacagtg 16740
gaaaggtcga cgcgtaaaac gtgttttgcg acccggcacc accgtagtct ttacgcccg 16800
tgagcgctcc accgcacct acaagcgcgt gtatgatgag gtgtacggcg acgaggacct 16860
gcttgagcag gccaacgagc gcctcgggga gtttgccctac ggaaagcggc ataaggacat 16920
gctggcggtt ccgctggacg agggcaaccc aacacctagc ctaaagcccg taacactgca 16980
gcaggtgctg cccgcgcttg caccgtccga agaaaagcgc ggcctaaagc gcgagtctgg 17040
tgacttgga cccaccgtgc agctgatggg acccaagcgc cagcgactgg aagatgtctt 17100
ggaaaaaatg accgtggaac ctgggctgga gcccgaggtc cgcgtgcggc caatcaagca 17160
ggcggcgccg ggactgggcg tgcagaccgt ggacgttcag ataccacta ccagtagcac 17220
cagtattgcc accgccacag agggcatgga gacacaaacg tccccggttg cctcagcggg 17280
ggcggatgcc gcggtgcagg cggcgcgtgc ggccgcgtcc aagacctcta cggaggcgca 17340
aacggacccg tggatgtttc gcgtttcagc ccccgggcgc ccgcgcggtt cgaggaagta 17400
cggcgccgcc agcgcgctac tgccgaata tgccctacat ccttcattg cgccatcccc 17460
cggctatcgt ggctacacct accgccccag aagacgagca actaccgcgc gccgaaccac 17520
cactggaacc cgccgccgcc gtcgcgctcg ccagcccgtg ctggccccga tttccgtgcg 17580

caggggtggct	cgcgaaaggag	gcaggaccct	ggtgctgcc	acagcgcgct	accaccccag	17640
catcgtttaa	aagccggtct	ttgtggttct	tgcagatatg	gccctcacct	gccgcctccg	17700
tttcccgggtg	ccgggattcc	gaggaagaat	gcaccgtagg	aggggcatgg	ccggccacgg	17760
cctgacgggc	ggcatgcgtc	gtgcgcacca	ccggcggcgg	cgcgcgtcgc	accgtcgcat	17820
gcgcggcgggt	atcctgcccc	tccttattcc	actgatcgcc	gcggcgattg	gcgccgtgcc	17880
cggaattgca	tccgtggcct	tgcaggcgca	gagacactga	ttaaaaacaa	gttgcattgtg	17940
gaaaaatcaa	aataaaaagt	ctggactctc	acgctcgctt	ggtcctgtaa	ctatttttga	18000
gaatggaaga	catcaacttt	gcgtctctgg	ccccgcgaca	cggctcgcgc	ccgttcattgg	18060
gaaactggca	agatatcggc	accagcaata	tgagcgggtg	cgccttcagc	tggggctcgc	18120
tgtggagcgg	cattaaaaat	ttcggttcca	ccgttaagaa	ctatggcagc	aaggcctgga	18180
acagcagcac	aggccagatg	ctgagggata	agttgaaaga	gcaaaatttc	caacaaaagg	18240
tggtagatgg	cctggcctct	ggcattagcg	gggtggtgga	cctggccaac	caggcagtgc	18300
aaaataagat	taacagtaag	cttgatcccc	gccctcccgt	agaggagcct	ccaccggccg	18360
tggagacagt	gtctccagag	gggcgtggcg	aaaagcgtcc	gcgccccgac	agggaagaaa	18420
ctctggtgac	gcaaatagac	gagcctccct	cgtacgagga	ggcactaaag	caaggcctgc	18480
ccaccacccg	tcccatcgcg	cccatggcta	ccggagtgct	gggccagcac	acaccgtaa	18540
cgtgggacct	gcctcccccc	gccgacaccc	agcagaaacc	tgtgctgcc	ggcccagaccg	18600
ccgttgttgt	aaccgcctct	agccgcgcgt	ccctgcgcgc	cgcgcgcagc	ggtccgcgat	18660
cgttgcgggc	cgtagccagt	ggcaactggc	aaagcacact	gaacagcatc	gtgggtctgg	18720
gggtgcaatc	cctgaagcgc	cgacgatgct	tctgaatagc	taacgtgtcg	tatgtgtgtc	18780
atgtatgcgt	ccatgtcgcc	gccagaggag	ctgctgagcc	gccgcgcgcc	cgttttccaa	18840
gatggctacc	ccttcgatga	tgccgcagtg	gtcttacatg	cacatctcgg	gccaggacgc	18900
ctcggagtac	ctgagccccg	ggctggtgca	gtttgcccgc	gccaccgaga	cgtacttcag	18960
cctgaataac	aagtttagaa	acccacgggt	ggcgcctacg	cacgacgtga	ccacagaccg	19020
gtcccagcgt	ttgacgctgc	ggttcattcc	tgtggaccgt	gaggatactg	cgtactcgta	19080
caaggcgcgg	ttcaccctag	ctgtgggtga	taaccgtgtg	ctggacatgg	cttcacgta	19140
ctttgacatc	cgcggcgtgc	tggacagggg	ccctactttt	aagccctact	ctggcactgc	19200
ctacaacgcc	ctggctccca	agggtgcccc	aaatccttgc	gaatgggatg	aagctgctac	19260
tgctcttgaa	ataaacctag	aagaagagga	cgatgacaac	gaagacgaag	tagacgagca	19320
agctgagcag	caaaaaactc	acgtatttgg	gcaggcgcct	tattctggta	taaataattac	19380

aaaggagggt attcaaatag gtgtcgaagg tcaaacacct aaatatgccg ataaaacatt 19440
 tcaacctgaa cctcaaatag gagaatctca gtggtacgaa actgaaatta atcatgcagc 19500
 tgggagagtc cttaaaaaga ctaccccaat gaaaccatgt tacggttcat atgcaaaacc 19560
 cacaaatgaa aatggagggc aaggcattct tgtaaagcaa caaatggaa agctagaaag 19620
 tcaagtggaa atgcaatttt tctcaactac tgaggcgacc gcaggcaatg gtgataactt 19680
 gactcctaaa gtggtattgt acagtgaaga tgtagatata gaaaccccag aactcatat 19740
 ttcttacatg cccactatta aggaaggtaa ctcacgagaa ctaatgggc aacaatctat 19800
 gcccaacagg cctaattaca ttgcttttag ggacaatttt attggtctaa tgtattacaa 19860
 cagcacgggt aatatgggtg ttctggcggg ccaagcatcg cagttgaatg ctgttgtaga 19920
 tttgcaagac agaaacacag agctttcata ccagcttttg cttgattcca ttggtgatag 19980
 aaccaggtac ttttctatgt ggaatcaggc tgttgacagc tatgatccag atgttagaat 20040
 tattgaaaat catggaactg aagatgaact tccaaattac tgctttccac tgggaggtgt 20100
 gattaatata gagactctta ccaaggtaaa acctaaaaca ggtcaggaaa atggatggga 20160
 aaaagatgct acagaatttt cagataaaaa tgaaataaga gttggaaata attttgccat 20220
 ggaaatcaat ctaaatagcca acctgtggag aaatttcctg tactccaaca tagcgctgta 20280
 tttgcccagc aagctaaagt acagtccttc caacgtaaaa atttctgata acccaaacac 20340
 ctacgactac atgaacaagc gagtgggtggc tcccggtta gtggactgct acattaacct 20400
 tggagcacgc tggtccttg actatatgga caacgtcaac ccatttaacc accaccgcaa 20460
 tgctggcctg cgctaccgct caatgttgct gggcaatggc cgctatgtgc ccttccacat 20520
 ccaggtgcct cagaagtctt ttgccattaa aaacctcctt ctctgcccgg gctcatacac 20580
 ctacgagtgg aacttcagga aggatgttaa catggttctg cagagctccc taggaaatga 20640
 cctaaggggt gacggagcca gcattaagt tgatagcatt tgcccttacg ccaccttctt 20700
 ccccatggcc cacaacaccg cctccacgct tgaggccatg cttagaaacg acaccaacga 20760
 ccagtccttt aacgactatc tctccgccgc caacatgctc taccctatac ccgccaacgc 20820
 taccaacgtg cccatatcca tcccctcccg caactgggcg gctttccgcg gctgggcctt 20880
 cacgcgcctt aagactaagg aaaccccatc actgggctcg ggctacgacc cttattacac 20940
 ctactctggc tctataccct acctagatgg aaccttttac ctcaaccaca cctttaagaa 21000
 ggtggccatt acctttgact cttctgtcag ctggcctggc aatgaccgcc tgcttaccac 21060
 caacgagttt gaaattaagc gctcagttga cggggagggt tacaacgttg cccagtgtaa 21120
 catgacaaa gactggttcc tgggtacaaat gctagctaac tacaacattg gctaccaggg 21180

cttctatata	ccagagagct	acaaggaccg	catgtactcc	ttcttttagaa	acttccagcc	21240
catgagccgt	caggtggtgg	atgatactaa	atacaaggac	taccaacagg	tgggcatcct	21300
acaccaacac	aacaactctg	gatttggttg	ctaccttgcc	cccaccatgc	gcgaaggaca	21360
ggcctaccct	gctaacttcc	cctatccgct	tataggcaag	accgcagttg	acagcattac	21420
ccagaaaaag	tttctttgcg	atcgcaccct	ttggcgcatc	ccattctcca	gtaactttat	21480
gtccatgggc	gactcacag	acctgggcca	aaaccttctc	tacgccaaact	ccgcccacgc	21540
gctagacatg	acttttgagg	tggatcccat	ggacgagccc	acccttcttt	atgttttggt	21600
tgaagtcttt	gacgtggtcc	gtgtgcaccg	gccgcaccgc	ggcgtcatcg	aaaccgtgta	21660
cctgcgcacg	cccttctcgg	ccggcaacgc	cacaacataa	agaagcaagc	aacatcaaca	21720
acagctgccc	ccatgggctc	cagtgagcag	gaactgaaag	ccattgtcaa	agatcttggg	21780
tgtggggcat	atTTTTTggg	cacctatgac	aagcgctttc	caggctttgt	ttctccacac	21840
aagctcgcct	gcgccatagt	caatacggcc	ggtcgcgaga	ctgggggctg	acactggatg	21900
gcctttgcct	ggaacccgca	ctcaaaaaca	tgctacctct	ttgagccctt	tggtttttct	21960
gaccagcgac	tcaagcaggt	ttaccagttt	gagtacgagt	cactcctgcg	ccgtagcgcc	22020
attgcttctt	ccccgaccg	ctgtataacg	ctggaaaagt	ccacccaaag	cgtacagggg	22080
cccaactcgg	ccgcctgtgg	actattctgc	tgcatgtttc	tccacgcctt	tgccaaactgg	22140
ccccaaactc	ccatgggatca	caacccacc	atgaacctta	ttaccggggg	acccaactcc	22200
atgctcaaca	gtccccaggt	acagcccacc	ctgcgtcgca	accaggaaca	gctctacagc	22260
ttcctggagc	gccactcgcc	ctacttccgc	agccacagtg	cgagagattag	gagcgccact	22320
tctttttgtc	acttgaaaaa	catgtaaaaa	taatgtacta	gagacacttt	caataaaggc	22380
aaatgctttt	atTTGTacac	tctcggtga	ttattttacc	ccacccttgc	cgtctgcgcc	22440
gtttaaaaat	caaagggggt	ctgccgcgca	tcgctatgcg	ccactggcag	ggacacgttg	22500
cgatactggg	gttttagtgc	ccacttaaac	tcaggcacaa	ccatccgcgg	cagctcggtg	22560
aagttttcac	tccacaggct	gcgcaccatc	accaacgcgt	ttagcaggtc	gggcgccgat	22620
atcttgaagt	cgagttggg	gcctccgccc	tgcgcgcgcg	agttgcgata	cacagggttg	22680
cagcactgga	acactatcag	cgccgggtgg	tgacgctgg	ccagcacgct	cttgctggag	22740
atcagatccg	cgtccaggtc	ctccgcgttg	ctcagggcga	acggagtcaa	ctttggtagc	22800
tgctttccca	aaaagggcgc	gtgcccaggc	tttgagttgc	actcgcaccc	tagtggcatc	22860
aaaaggtgac	cgtgcccggt	ctgggcgtta	ggatacagcg	cctgcataaa	agccttgatc	22920
tgcttaaaaag	ccacctgagc	ctttgcgcct	tcagagaaga	acatgccgca	agacttgccc	22980

gaaaactgat	tggccggaca	ggccgcgtcg	tgcacgcagc	accttgcgtc	ggtgttgag	23040
atctgcacca	catttcggcc	ccaccggttc	ttcacgatct	tggccttgct	agactgctcc	23100
ttcagcgcg	gctgcccgtt	ttcgctcgtc	acatccattt	caatcacgtg	ctccttattt	23160
atcataatgc	ttccgtgtag	acacttaagc	tgccttcga	tctcagcgca	gcggtgcagc	23220
cacaacgcgc	agcccgtygg	ctcgatgatc	ttgtagggtca	cctctgcaa	cgactgcagg	23280
tacgcctgca	ggaatcgccc	catcatcgtc	acaaaggtct	tgttgctggt	gaaggtcagc	23340
tgcaaccgc	ggtgctcctc	gttcagccag	gtcttgcata	cgcccgccag	agcttcact	23400
tggtcaggca	gtagtttgaa	gttcgccttt	agatcgttat	ccacgtggta	cttgtccatc	23460
agcgcgcg	cagcctccat	gcccttctcc	cacgcagaca	cgatcggcac	actcagcggg	23520
ttcatcacgc	taatttcact	ttccgcttcg	ctgggctctt	cctcttcctc	ttgcgtccgc	23580
ataccacgc	ccactgggtc	gtcttcattc	agccgcgcga	ctgtgcgctt	acctcctttg	23640
ccatgcttga	ttagcaccgg	tgggttgctg	aaaccaccca	ttttagcg	cacatcttct	23700
ctttcttcct	cgctgtccac	gattacctct	ggtgatggcg	ggcgctcggg	cttgggagaa	23760
gggcgcttct	ttttcttctt	gggcgcaatg	gccaaatccg	ccgcgcgagg	cgatggccgc	23820
gggctgggtg	tgcgcgccac	cagcgcgctc	tgtgatgagt	cttcctcgtc	ctcggactcg	23880
atacgccgc	tcatccgctt	ttttgggggc	gcccggggag	gcggcgccga	cggggacggg	23940
gacgacacgt	cctccatggt	tgggggacgt	cgcgcgcac	cgcgtccgcg	ctcgggggtg	24000
gtttcgcgct	gtcctctctc	ccgactggcc	atttccttct	cctataggca	gaaaaagatc	24060
atggagtcag	tcgagaagaa	ggacagccta	accgccccct	ctgagttcgc	caccaccgcc	24120
tccaccgatg	ccgccaacgc	gcctaccacc	ttccccgtcg	aggcaccccc	gcttgaggag	24180
gaggaagtga	ttatcgagca	ggaccaggt	tttctaagcg	aagacgacga	ggaccgctca	24240
gtaccaacag	aggataaaaa	gcaagaccag	gacaacgcag	aggcaaacga	ggaacaagtc	24300
gggcgggggg	acgaaaggca	tggcgactac	ctagatgtgg	gagacgacgt	gctgttgaa	24360
catctgcagc	gccagtgcgc	cattatctgc	gacgcgttgc	aagagcgag	cgatgtgccc	24420
ctcgccatag	cggatgtcag	ccttgccctac	gaacgccacc	tattctcacc	gcgcgtaccc	24480
cccaaaccgc	aagaaaacgg	cacatgcgag	cccaaccgcg	gcctcaactt	ctaccccgta	24540
tttgccgtgc	cagaggtgct	tgccacctat	cacatctttt	tccaaaactg	caagataccc	24600
ctatcctgcc	gtgccaaccg	cagccgagcg	gacaagcagc	tggccttgcg	gcagggcgct	24660
gtcatacctg	atatcgcttc	gctcaacgaa	gtgccaaaaa	tctttgaggg	tcttgagcgc	24720
gacgagaagc	gcgcggcaaa	cgctctgcaa	caggaaaaca	gcgaaaatga	aagtcactct	24780

ggagtgttgg	tggaactcga	gggtgacaac	gcgcgccctag	ccgtactaaa	acgcagcatc	24840
gaggtcaccc	actttgccta	cccggcactt	aacctacccc	ccaaggatcat	gagcacagtc	24900
atgagtgagc	tgatcgtgcg	ccgtgcgcag	cccctggaga	gggatgcaaa	tttgcaagaa	24960
caaacagagg	agggcctacc	cgcagttggc	gacgagcagc	tagcgcgctg	gcttcaaacg	25020
cgcgagcctg	ccgacttggg	ggagcgacgc	aaactaatga	tggccgcagt	gctcgttacc	25080
gtggagcttg	agtgcattga	gcggttcttt	gctgacccgg	agatgcagcg	caagctagag	25140
gaaacattgc	actacacctt	tcgacagggc	tacgtacgcc	aggcctgcaa	gatctccaac	25200
gtggagctct	gcaacctggg	ctcctacctt	ggaattttgc	acgaaaaccg	ccttgggcaa	25260
aacgtgcttc	attccacgct	caagggcgag	gcgcgccgcg	actacgtccg	cgactgcgtt	25320
tacttatctt	tatgctacac	ctggcagacg	gccatggggc	tttggcagca	gtgcttggag	25380
gagtgcaccc	tcaaggagct	gcagaaactg	ctaaagcaaa	acttgaagga	cctatggacg	25440
gccttcaacg	agcgtctccg	ggccgcgcac	ctggcggaca	tcattttccc	cgaacgcctg	25500
cttaaaaccc	tgcaacaggg	tctgccagac	ttcaccagtc	aaagcatggt	gcagaacttt	25560
aggaacttta	tcctagagcg	ctcaggaatc	ttgcccgcga	cctgctgtgc	acttcctagc	25620
gactttgtgc	ccattaagta	ccgcgaatgc	cctccgcgcg	tttggggcca	ctgctacctt	25680
ctgcagctag	ccaactacct	tgcttaccac	tctgacataa	tggaagacgt	gagcggtgac	25740
gggtctactg	agtgtcactg	tcgctgcaac	ctatgcaccc	cgcaccgctc	cctgggttgc	25800
aattcgcagc	tgcttaacga	aagtcaaatt	atcggtacct	ttgagctgca	gggtccctcg	25860
cctgacgaaa	agtccgcggc	tccgggggtg	aaactcactc	cggggctgtg	gacgtcggct	25920
taccttcgca	aatttgtacc	tgaggactac	cacgcccacg	agattaggtt	ctacgaagac	25980
caatcccgcg	cgccaaatgc	ggagcttacc	gcctgcgtca	ttaccagagg	ccacattctt	26040
ggccaattgc	aagccatcaa	caaagcccgc	caagagtttc	tgctacgaaa	gggacggggg	26100
gtttacttgg	acccccagtc	cggcgaggag	ctcaacccaa	tccccccg	gccgcagccc	26160
tatcagcagc	agccgcgggc	ccttgcttcc	caggatggca	cccaaaaaga	agctgcagct	26220
gccgcccgca	cccacggacg	aggaggaata	ctgggacagt	caggcagagg	aggttttggg	26280
cgaggaggag	gaggacatga	tggaagactg	ggagagccta	gacgaggaag	cttccgaggt	26340
cgaagaggtg	tcagacgaaa	caccgtcacc	ctcggtcgca	ttcccctcgc	cggcgcccca	26400
gaaatcggca	accggttcca	gcatggctac	aacctccgct	cctcaggcgc	cgccggcact	26460
gcccgttcgc	cgacccaacc	gtagatggga	caccactgga	accagggccg	gtaagtccaa	26520
gcagccgccc	ccgttagccc	aagagcaaca	acagcgccaa	ggctaccgct	catggcgccg	26580

gcacaagaac gccatagttg cttgcttgca agactgtggg ggcaacatct ccttcgcccc 26640
 ccgcttttctt ctctaccatc acggcggtggc cttcccccggt aacatcctgc attactaccg 26700
 tcctctctac agcccatact gcaccggcgg cagcggcagc ggcagcaaca gcagcggcca 26760
 cacagaagca aaggcgaccg gatagcaaga ctctgacaaa gcccaagaaa tccacagcgg 26820
 cggcagcagc aggaggagga gcgctgcgtc tggcgcccaa cgaacccgta tgcacccgcg 26880
 agcttagaaa caggattttt cccactctgt atgctatatt tcaacagagc aggggccaag 26940
 aacaagagct gaaaataaaa aacagggtctc tgcgatccct caccgcgagc tgctgtatc 27000
 acaaaagcga agatcagctt cggcgcacgc tgggaagacgc ggaggctctc ttcagtaaatt 27060
 actgcgcgct gactcttaag gactagtttc gcgccttttc tcaaatttaa gcgcgaaaac 27120
 tacgtcatct ccagcggcca caccggcgc cagcacctgt cgtcagcgc attatgagca 27180
 aggaaattcc cagccctac atgtggagtt accagccaca aatgggactt gcggctggag 27240
 ctgcccaga ctactcaacc cgaataaaact acatgagcgc gggacccac atgatatccc 27300
 ggggtcaacgg aatccgcgc caccgaaacc gaattctctt ggaacaggcg gctattacca 27360
 ccacacctcg taataacctt aatccccgta gttggccgc tgccctgggtg taccaggaaa 27420
 gtcccgctcc caccactgtg gtacttccca gagacgcca ggccgaagtt cagatgacta 27480
 actcaggggc gcagcttgcg ggcggtttc gtcacagggt gcggtcgccc gggcagggtg 27540
 taactcacct gacaatcaga gggcgaggta ttcagctcaa cgacgagtcg gtgagctcct 27600
 cgcttgggtc ccgtccggac gggacatttc agatcggcgg cgccggccgt ccttcattca 27660
 cgctcgtca ggcaatccta actctgcaga cctcgtctc tgagccgcgc tctggaggca 27720
 ttggaactct gcaatttatt gaggagttt tgccatcggt ctactttaac cccttctcgg 27780
 gacctcccg ccactatccg gatcaattta ttcctaactt tgacgcggta aaggactcgg 27840
 cggacggcta cgactgaatg ttaagtggag aggcagagca actgcgcctg aaacacctgg 27900
 tccactgtcg ccgccacaag tgctttgccc gcgactccgg tgagttttgc tactttgaat 27960
 tgcccgagga tcatatcgag ggcccggcgc acggcggtccg gcttaccgcc caggagagc 28020
 ttgcccgtag cctgattcgg gagtttacc agcgccccct gctagttgag cgggacaggg 28080
 gacctgtgt tctcactgtg atttgcaact gtcctaact tggattacat caagatcttt 28140
 gttgccatct ctgtgctgag tataataaat acagaaatta aaatatactg gggctcctat 28200
 cgccatcctg taaacgccac cgtcttcacc cgccaagca aaccaaggcg aaccttacct 28260
 ggtactttta acatctctcc ctctgtgatt tacaacagtt tcaaccaga cggagtgagt 28320
 ctacgagaga acctctccga gctcagctac tccatcagaa aaaacaccac cctccttacc 28380